Annual Drinking Water Quality Report

Publication date: July 1, 2024

www.rockvillemd.gov/waterquality

PWS ID MD0150003

Dear Valued Customer,

The City of Rockville is proud to present this report of our city's drinking water source, treatment, distribution, safety and quality. Once again, Rockville's drinking water met or exceeded all federal water quality regulation limits. Rockville's water system serves 70% of the city, or approximately 13,000 accounts and 52,000 community members. The Washington Suburban Sanitary Commission serves the remainder of the city.

At our Potomac River water treatment plant, operators monitor water quality to ensure chlorine and corrosion control, preventing lead and copper in distribution pipes from leaching into drinking water. Thousands of daily, monthly, quarterly and annual lab tests help determine the treatment necessary to provide safe, reliable drinking water. The plant incurred one monitoring violation in 2023. Due to a clerical error, the plant did not monitor or test for Phase II/V Synthetic Organic Contaminants for the third quarter (July 1-Sept. 30). This was not an emergency and did not require customers to take any action. More information is available in the public notification insert in this report. The city has since established greater oversight for scheduling sample collection and receiving reports.

Upgrades to the treatment plant are nearing completion, with replacement of aged electrical systems and components that provide primary power, and updates to the main building roof, HVAC and occupied operational areas, which had been unimproved since 1958. Upcoming projects include network security improvements and a chemical feed project to replace chlorine gas with sodium hypochlorite (liquid chlorine). These improvement projects will enhance system reliability and community safety and provide safer workspaces for employees.

As part of recent Lead and Copper Rule Revisions by the U.S. Environmental Protection Agency, Rockville is preparing to inventory all water service line materials on public and private property. The city will prepare a lead service line replacement plan and review corrosion control treatments based on rule revisions. Learn more at www.rockvillemd.gov/LCRR.

We welcome you to learn more at www.rockvillemd.gov/water. We thank you for your continued support of our mission to maintain a reliable water system to provide safe and high-quality drinking water to our customers.

Craig L. Simoneau, Director of Public Works, City of Rockville

Is my water safe?

The City of Rockville's drinking water is safe, as set forth in the Environmental Protection Agency (EPA) regulations and adopted and enforced by the Maryland Department of the Environment (MDE). For the 2023 calendar year, the city's water met or exceeded all water quality requirements.

The Water Quality Data Table shown on page 2 of this report lists all the drinking water contaminants that were detected. None of these contaminants exceeded the drinking water standards. This report will help to inform you about the quality of your water and includes details about where your water comes from, what it contains and how it compares to standards set by state and federal regulatory agencies.

Why are contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain 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 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 can pick up substances resulting from the presence of animals or from human activity, including:

- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.
- Microbial contaminants, such as viruses and bacteria that may come from wastewater treatment plants, septic systems, agricultural livestock operations and wildlife.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

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

Water Quality Data:

WATER TREATMENT PLANT PERFORMANCE

DETECTED REGULATED CONTAMINANTS	MCLG OR MRDLG	MCL, TT OR MRDL	HIGHEST LEVEL DETECTED	RANGE LOW	RANGE HIGH	IS THIS A VIOLATION?	LIKELY SOURCE OF CONTAMINATION
Turbidity (NTU)	NA	TT=1.0	0.26	0.01	0.26	No	Soil runoff.
Lowest monthly % meeting limit	NA	TT=0.3	NA	100%	NA	No	Soil runoff.
Residual Chlorine (ppm)	4	TT>0.2	1.2	Met all TT requirements.		No	Water additive to control microbes.
Total Organic Carbon	NA	TT	Measured monthly	Met all TT requirements.		No	Naturally present in the environment.

INORGANIC CONTAMINANTS	MCLG	MCL	HIGHEST LEVEL DETECTED OR AVERAGE	RANGE LOW	RANGE HIGH	IS THIS A VIOLATION?	LIKELY SOURCE OF CONTAMINATION
Barium (ppm)	2	2	0.032	0.03	0.03	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	4	4	0.60	0.41	0.64	No	Erosion of natural deposits; water additive, which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate (ppm), measured as nitrogen	10	10	1.3	1.3	1.3	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES AND HERBICIDES							
Atrazine (ppb)	3	3	ND	NA	NA	No	Runoff from herbicide used on row crops.

Water Quality Data:

WATER DISTRIBUTION SYSTEM

DISINFECTANTS & DISINFECTION BYPRODUCTS	MCLG OR MRDLG	MCL	RANGE LOW	RANGE HIGH	LRAA	IS THIS A VIOLATION?	LIKELY SOURCE OF CONTAMINATION
Residual Chlorine (ppm), measured as free chlorine	4.0	4.0	1.0	1.2	N/A	No	Water additive to control microbes.
Total Trihalomethanes (TTHM) (ppb)	NA	80	14.1	91.2	59.0	No	Byproduct of drinking water disinfection.
Haloacetic Acids (HAA5) (ppb)	NA	60	7.1	34	25.0	No	Byproduct of drinking water disinfection.

METALS AT CONSUMER TAPS	MCLG	ACTION LEVEL	90TH PERCENTILE	NO. OF SITES OVER ACTION LEVEL	UNITS	IS THIS A VIOLATION?	LIKELY SOURCE OF CONTAMINATION
Copper (ppm) (2021 test)	1.3	1.3	0.093	0	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (ppb)	0	15	ND	0	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.

PFAS – or 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 led 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. Beginning in 2020, the Maryland Department of the Environment (MDE) initiated a PFAS monitoring program. PFOA and PFOS are two of the most prevalent PFAS compounds. PFOA and PFOS concentrations from samples taken from our water system in 2022 were 2.55 parts per trillion (ppt) and 3.78 ppt, respectively. In March 2023, EPA announced proposed Maximum Contaminant Levels (MCLs) of 4 ppt for PFOA and 4 ppt for PFOS, and a Group Hazard Index for four additional PFAS compounds. Future regulations would require additional monitoring as well as certain actions for systems above the MCLs or Hazard Index. EPA will publish the final MCLs and requirements by the end of 2023 or beginning of 2024. Additional information about PFAS can be found on the MDE website: mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx

UNREGULATED CONTAMINANTS	AVERAGE	RANGE LOW	RANGE HIGH
PFBA	1.29	0	5.15
PFBS	0.91	0	3.62
PFHxA	2.84	0	5.8
PFPeA	4.11	0	6.53

For more information, please contact:

Glenn Maggard, Water Plant Superintendent Phone: 240-314-8556 • Email: gmaggard@rockvillemd.gov

This Drinking Water Quality Report is available on the city's website and posted online at www.rockvillemd.gov/waterquality. Paper copies are also available in City of Rockville facilities, including City Hall and recreation centers. If you would prefer a paper copy of the Drinking Water Quality Report mailed to your home, please call 240-314-8500. Please share this information with all other people who drink City of Rockville water, especially those who may not have received this notice directly, (e.g., in apartments, nursing homes, schools and businesses). You can do this by printing and posting this report in a public place and/or by distributing copies or the web address. Visit www.rockvillemd.gov/AgendaCenter for upcoming meetings of the Mayor and Council. The city provides numerous opportunities for public participation. For more details, visit www.rockvillemd.gov/mayorcouncil.

This report is required by the United States Environmental Protection Agency and the Maryland Department of the Environment.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

This is to serve notice that the City of Rockville's Potomac Filter Plant did not meet a monitoring and reporting requirement for the third quarter of 2023 (July 1-Sept. 30, 2023) at the City of Rockville Potomac Filter Plant.

What should I do?

You do not need to take corrective actions. However, if you have specific health concerns, consult your doctor.

You do not need to use an alternative, e.g., bottled, water supply.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether our drinking water meets health standards. During July 1-Sept. 30, 2023, we did not monitor or test for Phase II/V Synthetic Organic Contaminants (SOCs), and therefore cannot be sure of the quality of the drinking water during that time.

What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. SOCs may be harmful to some people who drink the water over many years when SOCs are found in excess of the maximum contaminant level (MCL). Consumers may experience problems with their eyes, liver, kidneys, spleen, cardiovascular system, reproductive difficulties, thyroid, stomach and blood, and have increased risk of cancer, depending on the contaminant. Consumers may also experience dementia after many years or general toxic effects.The City of Rockville performs SOC sampling twice a year, in April and July, and previously had no issues with analyzed results. These results are reported on previous years' water quality reports.

What was done?

After notification of the monitoring violation, we discovered a clerical error in scheduling the contracted lab to collect samples for analysis. Sampling for SOCs was conducted on Oct. 23, 2023. Samples were found to meet all water quality standards and fall below the MCL. The city has since established greater oversight for scheduling sample collection and receiving reports. With this situation resolved, the city will continue to meet monitoring regulations. For more information, or to learn more about protecting your drinking water, please contact Glenn Maggard at 240-314-8556 or Glenn Maggard, Department of Public Works, City of Rockville, 111 Maryland Ave., Rockville, MD 20850. Please share this information with all 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 is provided by the City of Rockville Water System.

PWSID 0150003

Date Distributed: July 1, 2024.

This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.	이 보고서에는 귀하의 식수에 대한 중요한 내용이 실려있습니다. 그러므로 이 보고서를 이해할 수 있는 사람한테 번역해 달라고 부탁하시기 바랍니다.
此報告包含有關您的飲用水的重要資訊。請人幫您翻譯出來，或請能看懂此報告的人將內容說給您聽。	В этом сообщении содержится важная информация о воде, которую вы пьёте. Попросите кого-нибудь перевести для вас это сообщение или поговорите с человеком, который понимает его содержание.

Water Quality Data:

WATER TREATMENT VIOLATIONS

VIOLATION EXPLANATION

We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

NAME	VIOLATION TYPE	VIOLATION BEGIN	VIOLATION END
Alachlor	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.			
Atrazine	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing atrazine in excess of the MCL over many years could have problems with their cardiovascular system or reproductive difficulties.			
Benzo(a)pyrene	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.			
Chlordane	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing chlordane in excess of the MCL over many years may experience problems with their liver or nervous system, and may have an increased risk of getting cancer.			
Di (2-ethylhexyl) adipate	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.			
Di (2-ethylhexyl) phthalate	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.			
Endrin	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.			
Heptachlor	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.			
Heptachlor epoxide	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.			
Hexachlorobenzene	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.			
Hexachlorocyclopentadine	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing hexachlorocyclopentadine well in excess of the MCL over many years could experience problems with their kidneys or stomach.			
Lindane	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.			
Methoxychlor	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.			
Simazine	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.			
Toxaphene	Monitoring, Routine Major	07/01/2023	09/30/2023
Some people who drink water containing texaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of cancer.			

The table to the left lists all of the drinking water contaminants that were detected during calendar year 2023. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in calendar year 2023.

Definitions Used in this Report

Unit Descriptions:

TERM	DEFINITION
NTU	Nephelometric Turbidity Unit
ppm	Parts per million, or milligrams per liter (mg/L). 1 ppm is similar to 1 ounce in 7,350 gallons of water.
ppb	Parts per billion, or micrograms per liter (µg/L). 1 ppb is similar to 1 ounce in 7,350,000 gallons of water.
NA	Not Applicable
ND	Not Detected (by a test procedure)

Important Drinking Water Definitions:

TERM	DEFINITION
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.
LRAA	Location Running Annual Average.
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 for sensitive individuals.
MRDL	Maximum Residual Disinfectant Level: 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.
MRDLG	Maximum Residual Disinfection Level Goal: The level of a drinking water disinfectant below which no health risk is known or expected. MRDLGs do not reflect the benefits of using disinfectants to control microbial contaminants.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Where does my water come from?

Our primary source of water is the Potomac River. When Rockville's water plant is not operating because of necessary improvements or maintenance activities, or in cases of regional drought, Rockville purchases water from the Washington Suburban Sanitary Commission (WSSC). In 2023, Rockville purchased about 6.54 million gallons of water (approximately 0.39% of our annual production) from WSSC, which also receives its water from the Potomac River.

Source water assessment and its availability

MDE performed a source water assessment of the Potomac River as it applies to the Rockville water plant. The 2002 report may be obtained online or by contacting the Water Supply Program at MDE, 1800 Washington Blvd., Baltimore, MD 21230. You can also call 410-537-3589. For more information on the Maryland Source Water Protection Program, go to www.mde.state.md.us/programs/water/water_supply/source_water_assessment_program.

Do I need to take special precautions?

Some people may be more vulnerable than the general population to contaminants in drinking water. Immunocompromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly and infants can be at risk from infections. These people should seek advice from their health care providers about drinking water. EPA and the Centers for Disease Control (CDC) issue guidelines on appropriate measures to reduce the risk of infection by cryptosporidium and other microbial contaminants. Call the EPA Safe Drinking Water hotline at 1-800-426-4791 for more information.

Additional information about 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. The City of Rockville 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 Glenn Maggard, water treatment plant superintendent, at 240-314-8556 or gmaggard@rockvillemd.gov. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at www.epa.gov/safewater/lead.

How is my water treated?

The City of Rockville's water treatment plant was put into service in 1958 and, at that time, was capable of producing 4 million gallons per day (MGD) of treated water. The plant was upgraded in 1967 to increase production to 8 million gallons per day. In the mid-1990s, and in 2017, additional upgrades to the plant were made to meet EPA and MDE regulations. Since then, an average of 5 million gallons per day of raw (untreated) water is withdrawn from the Potomac River, treated at the plant and distributed to the city's water customers. Once at the plant, the water is put through a six-step treatment process to ensure it meets Safe Drinking Water Act standards. Once treated, the water is sent through a series of underground water lines and water storage tanks and to your faucet.

The river water is treated to remove suspended sediments, algae, parasites, bacteria, metals and other contaminants through the following processes:

Screen

Water from the Potomac River is pumped through a screen to remove large debris such as sticks, leaves and rocks. If algae blooms are present in the raw water withdrawn from the river, it is treated with potassium permanganate.

Coagulation

Water is treated with chemical compounds that make small suspended particles stick together and settle out of the water. This particle conglomerate is removed from the water prior to filtration.

Sedimentation

Water is passed through a settling basin or clarifier, allowing time for mud, sand, metals and other sediment to settle out.

Filtration

Water is passed through a dual media (sand and anthracite) filter, which removes many remaining contaminants.

Disinfection

Chlorine is added to the water to kill and/or inactivate any remaining pathogens. Fluoride is added to prevent tooth decay and a corrosion inhibitor is added to preserve the pipes that deliver the water to homes and businesses.

To Homes and Businesses

The treated water is stored in two storage tanks and is gravity-fed to houses and businesses when needed. The water is sampled at the plant, in the distribution system and at the tap in homes and businesses for lead, copper, other potentially harmful contaminants, bacteria and residual chlorine.

Visit www.rockvillemd.gov/waterquality for an in-depth diagram of the water treatment process.

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此報告包含有關您的飲用水的重要資訊。請人幫您翻譯出來，或請能看懂此報告的人將內容說給您聽。

В этом сообщении содержится важная информация о воде, которую вы пьёте. Попросите кого-нибудь перевести для вас это сообщение или поговорите с человеком, который понимает его содержание.