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-1990's 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 Since then, an average of 5 million gallons per day of raw (untreated) water is withdrawn from the Potomac River, treated at the water plant and distributed to the City's water customers.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 the drinking water meets Safe Drinking Water Act standards. Once treated, the water is sent through a series of underground water lines and water storage tanks 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 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 If algae blooms are present in the raw water withdrawn from the river, it is treated with potassium permanganate.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 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

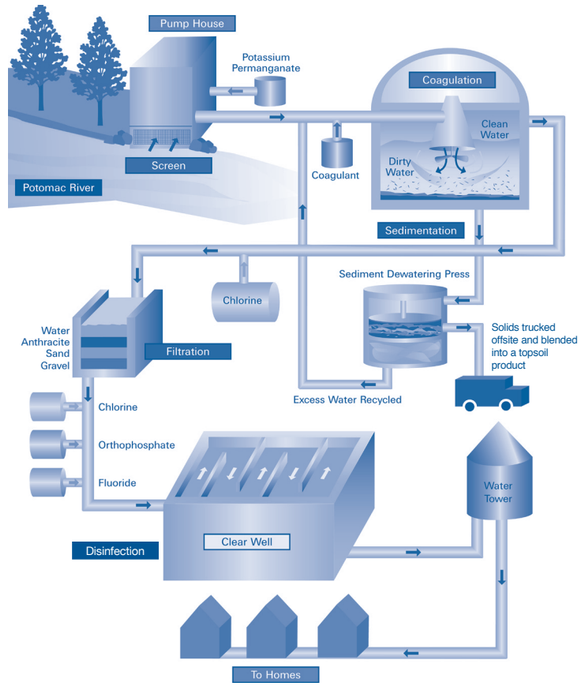
Water is passed through a dual media (sand and anthracite) filter, which removes many remaining contaminants.

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.



"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.

CITY OF ROCKVILLE
111 Maryland Avenue, Rockville, MD 20850 • 240-314-8500 • www.rockvillemd.gov

Annual Drinking Water Quality Report

Publication date: July 1, 2016

www.rockvillemd.gov/annualwaterquality2016 **PWS ID MD0150003**

Dear Valued Customer,
Once again in 2015, Rockville's drinking water met or exceeded all federal health and safety regulation limits. We invite you to take a moment to review this water quality report, which provides details about the source, treatment, distribution, safety and quality of Rockville's drinking water.

This report includes details about lead and copper testing, which we are required to perform every three years. Results of these tests have consistently shown lead and copper levels below where the Environmental Protection Agency takes remedial action. The next round of testing will occur in September.

Our drinking water is essentially lead-free before entering your home's water service line. The city has no record of lead pipes in city water lines. However, lead service lines have on rare occasion been discovered and replaced via the city's water main replacement program. While the city is responsible for providing high quality drinking water, it cannot control the materials used in home plumbing and service lines, which are the responsibility of the homeowner. Customers concerned about lead may wish to have their water tested by a certified laboratory. For a list of Maryland Department of the Environment (MDE)-certified labs, visit http://ow.ly/Yp4xH.

The city's water treatment process makes Rockville's water less corrosive. This helps prevent pipe corrosion, which can cause lead to leach into tap water. Such was the case in Flint, Mich., where public health officials reported increased lead levels in children, which can cause serious health problems. Learn more through the Safe Drinking Water Hotline at 1-800-426-4791 or www.epa.gov/your-drinking-water/safe-drinking-water-hotline.

More than 46,000 people who live and work in Rockville get their water from the city's water treatment plant on the Potomac River. Potomac River water quality can vary greatly from day to day, making it challenging to treat. The city performs hourly tests to monitor the water treatment process. The results are used to make adjustments to the water treatment process. This summer, we will start using new chemical feed systems at the plant to help ensure compliance with more stringent water quality standards related to disinfectant byproducts that can pose health concerns.

We invite you to learn more about Rockville's drinking water at www.rockvillemd.gov/water. We thank you for your continued support of the city's commitment to providing Rockville with drinking water service that is safe and reliable and contributes to the health and quality of life of our customers.

Judy Ding

Judy Ding, Acting 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 2015 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; and
- 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. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

City of Rockville Get Into It

Department of Public Works

Water Quality Data Table

DETECTED REGULATED CONTAMINANTS	MCLG OR MRDLG	MCL, TT OR MRDL	TEST RESULTS	RANGE LOW	RANGE HIGH	SAMPLE YEAR	IS THIS A VIOLATION?	TYPICAL SOURCE
WATER TREATMENT PLANT PERFORMANCE								
Turbidity (NTU) [1]	N/A	TT=0.3	0.05	0.01	0.19	2015	No	Soil runoff
[1] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Our turbidity results are 100%< 0.3 NTU; a value less than 95% constitutes a turbidity violation.								
Residual Chlorine (ppm)	4	TT>0.2	2.1	0.6	3.6	2015	No	Water additive to control microbes
INORGANIC CONTAMINANTS								
Arsenic (ppb)	0	10	ND	NA	NA	2015	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium (ppm)	2	2	0.036	NA	NA	2015	No	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Chromium (ppb)	100	100	ND	NA	NA	2015	No	Erosion of natural deposits; discharge from steel and pulp mills
Fluoride (ppm)	4	4	0.56	0.38	0.72	2015	No	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (ppm), measured as nitrogen	10	10	0.44	NA	NA	2015	No	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks; sewage
ORGANIC CONTAMINANTS								
Atrazine (ppb)	3	3	ND	NA	NA	2015	No	Runoff from herbicide used on row crops
Pentachlorophenol (ppb)	0	1	ND	NA	NA	2015	No	Discharge from wood preserving factories
WATER DISTRIBUTION SYSTEM								
Total Coliform % positive samples per month	0	5	0 [2]	0	0	2015	No	Naturally present in the environment
[2] Minimum sampling frequency is 50 samples per month.								
DISINFECTANTS [3] & DISINFECTION BYPRODUCTS								
Residual Chlorine (ppm), measured as free chlorine	4.0	4.0	1.07 [4]	0.21	1.89	2015	No	Water additive to control microbes
Total Trihalomethanes (ppb)								
Stage 2	NA	80[5]	62.1[6]	19.3	131.0	2015	No	Byproduct of drinking water disinfection
Haloacetic Acids (ppb)								
Stage 2	NA	60[5]	39.2[6]	25.3	62.6	2015	No	Byproduct of drinking water disinfection
[3] There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. [4] Annual average. [5] Running annual average compliance calculation applies through calendar year 2015, per MDE. [6] Highest running annual average.								
METALS @ CONSUMER TAPS								
Copper (ppm)	1.3	1.3 (AL)	0.082	0.009	0.110	2013 [7]	No	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	0	15 (AL)	ND	NA	NA	2013 [7]	No	Corrosion of household plumbing systems; erosion of natural deposits
[7] Copper and lead testing is required every three years, with the next testing due in September 2016.								

Do I need to take special precautions?

Some people may be more vulnerable than the general population to contaminants in drinking water. 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, and some elderly and infants can be at risk from infections. These people should seek advice about drinking water from their health care providers. 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 for lead

If present, elevated levels of 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, 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 water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/safewater/lead.

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 Sanitation Commission (WSSC). In 2015, Rockville purchased about 96,000 gallons of water (approximately 0.006 percent 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 400-537-3589. 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.

For more information, please contact:

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

This Drinking Water Quality Report is available on the City's website and posted online at www.rockvillemd.gov/annualwaterquality2016. Paper copies are also available in City of Rockville facilities including City Hall and the 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, (for example, those who live in apartments, nursing homes, or to 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.

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

The table to the left lists all of the drinking water contaminants that were detected during calendar year 2015. 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 2015. The EPA and MDE allow us to monitor for certain contaminants less than once per year because the concentration of these contaminants does not change frequently.

Definitions Used in this Report

Unit Descriptions are as follows:

TERM	DEFINITION
NTU	Nephelometric Turbidity Unit
ppm	Parts per million, or milligrams per liter (mg/L). 1 ppm is similar to 1 penny in $10,000.
ppb	Parts per billion, or micrograms per liter (µg/L). 1 ppb is similar to 1 penny in $10,000,000.
NA	Not Applicable
ND	Not Detected (by a test procedure)

Important Drinking Water Definitions:

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 ensure a margin of safety for sensitive individuals.
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	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
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.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.