



2023 Annual
**WATER QUALITY
REPORT**

FORT GREGG ADAMS
PWS ID: VA3149247

**QUALITY. ONE MORE WAY
WE KEEP LIFE FLOWING.**



**VIRGINIA
AMERICAN WATER**

WE KEEP LIFE FLOWING®

What is a Consumer Confidence Report (CCR)

Once again, we proudly present our Annual Water Quality Report, also referred to as a Consumer Confidence Report (CCR). CCRs let consumers know what contaminants, if any, were detected in their drinking water as well as related potential health effects. CCRs also include details about where your water comes from and how it is treated. Additionally, they educate customers on what it takes to deliver safe drinking water and highlight the need to protect drinking water sources.

We are committed to delivering high quality drinking water service. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, environmental compliance, sustainability and community education while continuing to serve the needs of all our water users.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it at 1-800-452-6863.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien al 1-800-452-6863.

Ntawm no yog ib co lus qhia tseem ceeb heev txog koj cov dej seb huv npaum li cas. Yog tias koj xav tau kev pab txhais cov lus qhia no, thov hu rau peb ntawm 1-800-452-6863.

這是關於您的水質的十分重要的資訊。如果您需要幫助翻譯此資訊請致電 **1-800-452-6863** 與我們聯繫。

आपके पानी की गुणवत्ता के बारे में यह बहुत महत्वपूर्ण सूचना है। यदि इस सूचना के अनुवाद के लिए आपको सहायता की जरूरत हो, तो कृपया **1-800-452-6863** र हमें काल करें।

Это очень важная информация о качестве Вашей воды. Если Вам требуется перевод этой информации, позвоните нам по телефону 1-800-452-6863.

Ito ay isang napakahalagang impormasyon tungkol sa kalidad ng iyong tubig. Kung iyong kailangan ng tulong sa pagsalin ng impormasyon na ito, mangyaring tumawag sa amin sa 1-800-452-6863.

Đây là thông tin rất quan trọng về chất lượng nước của quý vị. Nếu quý vị cần thông dịch thông tin này, xin gọi chúng tôi theo số 1-800-452-6863.

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A message from Virginia American Water's President



Barry Suits

President, Virginia
American Water

Dear Virginia American Water Customer,

From meeting and surpassing state and federal drinking water standards to investing millions each year to upgrading our infrastructure, our employees take great pride in what we do each and every day. We hold ourselves to the highest standards in delivering safe, clean, reliable and affordable drinking water to our customers.

Our water is regularly tested and monitored to confirm compliance with state and federal guidelines. In fact, our water quality professionals and treatment plant operators perform thousands of tests annually for about 100 regulated contaminants. Each Spring, we publish those results from the entire year prior in this annual water quality report.

You may not know that we have been providing drinking water service to the Commonwealth of Virginia for over 100 years. Our job is to provide quality water service not only today, but well into the future. This requires significant investment in our water infrastructure and in 2023 alone, Virginia American Water invested more than \$53 million in water system improvements.

On behalf of our dedicated team of experts, I thank you for allowing us the privilege to serve as your local water service provider.

Sincerely,

Barry L. Suits, P.E.
President
Virginia American Water

A handwritten signature in black ink that reads "Barry L. Suits". The signature is written in a cursive, slightly slanted style.

This report contains important information about your drinking water. Translate it or speak with someone who understands it at (800) 452-6863, Monday-Friday, 7 a.m. to 7 p.m.



ATTENTION: Landlords and Apartment Owners

Please share a copy of this notice with your tenants. It includes important information about their drinking water quality.



Mark of
Excellence



EVERY STEP OF THE WAY.

We monitor and test your water at multiple points throughout our process of drawing it from its source, treating it to meet drinking water standards, and distributing it through our pipeline systems. **In fact, American Water performs over one million tests annually for about 100 regulated contaminants, nationwide.**



EXPERTISE. RECOGNIZED AT THE HIGHEST LEVEL.

American Water is an expert in water quality testing, compliance and treatment and has established industry-leading water testing facilities. Our dedicated team of scientists and researchers are committed to finding solutions for water quality challenges and implementing new technologies. We are recognized as an industry leader in water quality and work cooperatively with the EPA so that drinking water standards and new regulations produce benefits for customers and public water suppliers. American Water has earned awards from the EPA's Partnership for Safe Water as well as awards for superior water quality from state regulators, industry organizations, individual communities, and government and environmental agencies.



WATER QUALITY. DOWN TO A SCIENCE.

We also have access to American Water's Central Laboratory in Belleville, Illinois, which conducts sophisticated drinking water testing and analysis. Here, American Water scientists refine testing procedures, innovate new methods, and look for ways to detect potentially new contaminants—even before regulations are in place.



MAINTAINING QUALITY FOR FUTURE GENERATIONS.

Just as Virginia American Water is investing in research and testing, we also understand the importance of investing in the infrastructure that provides high-quality water service to you. Last year alone, **we invested more than \$53 million to improve our water treatment and pipeline systems.**

About Your Drinking Water Supply



WHERE YOUR WATER COMES FROM

Since April 2001, Virginia American Water Company "VAWC" has been the operator of the water system at the U.S. Army Garrison at Fort Gregg Adams, Virginia. Fort Gregg Adams is served by an abundant water supply from two major surface water treatment plants. Fort Gregg Adams is a consecutive water system. That is, the drinking water that enters the base is supplied from other treatment facilities outside the installation. Currently, water is supplied from both the Appomattox River Water Authority "ARWA" in Petersburg and VAWC through its water treatment plant located in Hopewell. For the Hopewell District, the water is withdrawn from the Appomattox River, at the confluence with the James River. The combined drainage area of these two watersheds is approximately 9,000 square miles. Lake Chesdin, which is supplied by the Appomattox River, is the water source for ARWA.

The Source Water Assessment Program (SWAP) is a result of the 1996 amendments to the Federal Safe Drinking Water Act (SDWA). Those amendments require all states to establish a program to assess the vulnerability of public water systems to potential contamination.

While Fort Gregg Adams is classified as a consecutive water system, the Virginia Department of Health (VDH), Office of Water Programs, performed a source water assessment of the Appomattox and James Rivers in 2001 for the Hopewell District. This assessment consisted of defining the drainage-watershed area, provided an inventory of known land use activity, and identified any known contamination that occurred within the last five years within a five-mile radius of our water intakes. The report became available in the year 2002 and is the first step in the preparation of a Source Water Protection Program (SWPP). The rivers were determined to be of high susceptibility to contamination using the criteria developed by the state in its approved SWAP. The assessment report consists of maps showing the Source Water Assessment area, an inventory of known land use activities and potential sources of contamination of concern, best management practices utilized at land use activity sites in zone 1, documentation of any known contamination within the last five years, susceptibility explanation chart, and definitions of key terms. The report is available by contacting your waterworks system owner at (804) 446-9822."

The Virginia Department of Health updated a source water assessment of the ARWA system during May 2019. Any source water type that is surface water and has any 1 or more potential sources of contamination within a 5-mile fixed radius of the raw water intake (Zone 1) are automatically ranked as having a "high" susceptibility. The Chesdin Reservoir Raw Water Intake was ranked to have a "high" susceptibility to contamination, using this criteria developed by the State in its EPA-approved Source Water Assessment Program. The explanation provided says "surface water source exposed to an inconsistent array of contaminants at varying concentrations due to changing hydrologic, hydraulic and atmospheric conditions with potential sources of contamination of concern in the Zone 1 assessment area."¹ The assessment report consists of maps showing the source water assessment area, an inventory of known land use activities of concern and documentation of any known contamination within the last five years from the date of the assessment. The report is available by contacting Robert Wilson, Executive Director, at (804) 590-1145.

To learn more about our watershed on the Internet, go to U.S. EPA's Search Your Watershed at <https://mywaterway.epa.gov/>



QUICK FACTS ABOUT THE FORT GREGG ADAMS SYSTEM

Communities served:
Fort Gregg Adams

Water source:
VAWC – Appomattox River
ARWA- Lake Chesdin

Average amount of water supplied to customers on a daily basis:
1 million gallons per day

Disinfection treatment:
Surface water supplies are treated with chloramines to maintain water quality in the distribution system.



What are the Sources of Contaminants?

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

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 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 (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, aquifers and/or groundwater. 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.

SPECIAL HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. 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, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

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



Protecting Your Drinking Water Supply

Protecting drinking water at its source is an important part of the process to treat and deliver high quality water. It takes a community effort to protect our shared water resources. This includes utilities, businesses, residents, government agencies and organizations. Everyone who lives, works, and plays in the area has a role and stake in clean water supplies.

WHAT CAN YOU DO?

Quality drinking water starts upstream. Everyone can help maintain and improve drinking water supplies through the following actions:

- Properly dispose of pharmaceuticals, household chemicals, oils and paints. Materials can impact water ways if poured down the drain, flushed down the toilet, or dumped on the ground.
- Check for leaks from automobiles and heating fuel tanks. Clean up any spills using an absorbent material like cat litter. Sweep up the material and put it in a sealed bag. Check with the local refuse facility for proper disposal.
- Clean up after your pets and limit the use of fertilizers and pesticides.
- Take part in watershed activities.

Report any spills, illegal dumping or suspicious activity to VDEQ Pollution Response Program (PREP) here: (804) 527-5020.

FOR MORE INFORMATION

To learn more about your water supply and local activities, visit us online at <https://www.amwater.com/vaaw/> or contact the regional Source Water Protection Lead, Kelly Ryan, at 1-800-452-6863.

WHAT ARE WE DOING?

Our priority is to provide reliable, quality drinking water service for customers. The source of supply is an important part of that mission. We work to understand and reduce potential risks to your drinking water supply.

Here are a few of the efforts underway to protect our shared water resources:



Community Involvement: We have a proactive public outreach program to help spread the word and get people involved. This includes school education, contests, and other community activities.

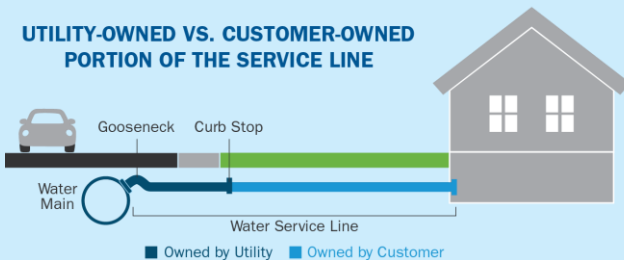


Environmental Grant Program: Each year, we fund projects that improve water resources in our local communities.

About 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. American Water 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 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 Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

UTILITY-OWNED VS. CUSTOMER-OWNED PORTION OF THE SERVICE LINE



Please note: This diagram is a generic representation. Variations may apply.

The most common source of lead in tap water is from the customer's plumbing and their service line.

The utility-owned water mains are not made of lead; however, the water service line that carries the water from the water main in the street to your home could be. Homeowners' service lines may be made of lead, copper, galvanized steel or plastic. You can assess your service line material where it enters your home, typically in your basement, crawl space or garage, near the inlet valve.

MINIMIZING YOUR POTENTIAL EXPOSURE

You cannot see, smell or taste lead, and boiling water will not remove lead. Here are steps you can take to reduce your potential exposure if lead exists in your home plumbing.

CHECK YOUR PLUMBING AND SERVICE LINE

If you live in an older home, consider having a licensed plumber check your plumbing for lead. If your service line is made of lead, and you're planning to replace it, be sure to contact us at 1-800-452-6863.



1. Flush your taps. The longer the water lies dormant in your home's plumbing, the more lead it might contain. If the water in your faucet has gone unused for more than six hours, flush the tap with cold water for 30 seconds to two minutes before drinking or using it to cook. To conserve water, catch the running water and use it to water your plants.



2. Use cold water for drinking and cooking. Hot water has the potential to contain more lead than cold water. If hot water is needed for cooking, heat cold water on the stove or in the microwave.



3. Routinely remove and clean all faucet aerators.



4. Look for the "Lead Free" label when replacing or installing plumbing fixtures.



5. Follow manufacturer's instructions for replacing water filters in household appliances, such as refrigerators and ice makers, as well as home water treatment units and pitchers. Look for NSF 53 certified filters.



6. Flush after plumbing changes. Changes to your service line, meter, or interior plumbing may result in sediment, possibly containing lead, in your water supply. Remove the strainers from each faucet and run the water for 3 to 5 minutes.

Determining Your Service Line Material

Homeowners' service lines are most commonly made of lead, copper, galvanized steel or plastic. Homes built before 1930 are more likely to have lead plumbing systems.

There are different ways that you can determine if you have a lead service line.

- You can access your service line material where it enters your home, typically in your basement, crawl space or garage, near the inlet valve and identify the pipe material using the chart on the right.
- A licensed and insured plumber can inspect your pipes and plumbing.
- Lead test kits can be purchased at local hardware and home improvement stores. These kits are used to test paint, but can also be used to test pipe – not the water inside. Look for an EPA recognized kit. Wash your hands after inspecting plumbing and pipes.

TYPES OF PIPE

	<ul style="list-style-type: none">• Galvanized: A dull, silver-gray color. Use a magnet - strong magnets will typically cling to galvanized pipes.
	<ul style="list-style-type: none">• Copper: The color of a copper penny.
	<ul style="list-style-type: none">• Plastic: Usually white, rigid pipe that is jointed to water supply piping with a clamp. Note: It can be other colors, including blue and black.
	<ul style="list-style-type: none">• Lead: A dull, silver-gray color that is easily scratched with a coin. Use a magnet - strong magnets will <u>not</u> cling to lead pipes.

YOUR SERVICE LINE MATERIAL

Please note if your service lines contain lead, it does not mean you cannot use water as you normally do. Virginia American Water regularly tests for lead in drinking water and our water meets state and federal water quality regulations, including those set for lead.

For more information on lead in drinking water, please visit <https://www.amwater.com/vaaw/Water-Quality/lead-and-drinking-water>.



Important Information About **Drinking Water**

CHLORAMINES

Chloramines are a Virginia and federally-approved alternative to free chlorine for water disinfection. Chloramines can reduce disinfection by-product formation and may help reduce concerns related to taste. Chloramines are also used by many American Water systems and many other water utilities nationally.

Chloramines have the same effect as chlorine for typical water uses with the exception that chloramines must be removed from water used in kidney dialysis and fish tanks or aquariums.

Treatments to remove chloramines are different than treatments for removing chlorine. Please contact your physician or dialysis specialist for questions pertaining to kidney dialysis water treatment. Contact your pet store or veterinarian for questions regarding water used for fish and other aquatic life. You may also contact our Customer Service Center at 1-800-452-6863 for more chloramine information.

FLUORIDE

Fluoride is a naturally occurring substance. It can be present in drinking water from two sources:

1. **By nature** when groundwater comes into contact with fluoride-containing minerals naturally present in the earth; or
2. **By a water purveyor** through addition of fluoride to the water they are providing in the distribution system.

The Hopewell System adds fluoride to achieve an optimal fluoride level of 0.7 parts per million (ppm) and a control range of 0.6 ppm to 0.9 ppm.

If you have any questions on fluoride, please call Virginia American Water's Customer Service Center at (800) 452-6863.





CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

SODIUM

Sodium was detected in your drinking water. There is presently no established standard for sodium in drinking water. Drinking water does not play a significant role in sodium exposure for most individuals. Those that are under treatment for sodium-sensitive hypertension should consult with their health care provider regarding sodium levels in their drinking water supply and the advisability of using an alternative water source or point-of-use treatment to reduce the sodium. For individuals on a very low sodium diet (500mg/day), the EPA recommends that drinking water sodium not exceed 20 mg/L. The World Health Organization has established a drinking water guideline of 200 mg/L of sodium on the basis of esthetic considerations. (i.e.taste)



Water Quality Results

WATER QUALITY STATEMENT

We are pleased to report that during calendar year 2023, the results of testing of your drinking water complied with all state and federal drinking water requirements.

For your information, we have compiled a list in the table below showing the testing of your drinking water during 2023. The Virginia Department of Health allows us to monitor for some contaminants less than once per year because the concentration of the contaminants does not change frequently. Some of our data, though representative, are more than one year old.

Why does my water sometimes have a chlorine taste and odor?

During the months of April, May, and June, you may notice the taste and odor of chlorine in your water. Every year, during this time, Virginia American Water uses free chlorine instead of the less noticeable combined chlorine (chloramines) as a disinfectant during distribution system flushing. Free chlorine is used during the water main flushing program done each year to maintain a high level of water quality.

OTHER INFORMATION

This CCR was prepared by K. Ryan, Water Quality Supervisor. If you have questions about this report, you want additional information about your drinking water, or want to know how to participate in local activities that may help protect the quality of your drinking water, please contact: K. Ryan, Water Quality Supervisor, email: Kelly.ryan@amwater.com

Definition of Terms

These are terms that may appear in your report.

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

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.

LRAA: Locational Running Annual Average

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. See also Secondary Maximum Contaminant Level (SMCL).

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 (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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.

MFL: Million fibers per liter.

micromhos per centimeter ($\mu\text{mhos/cm}$): A measure of electrical conductance.

NA: Not applicable

ND: Not detected

Nephelometric Turbidity Units (NTU): Measurement of the clarity, or turbidity, of the water.

pH: A measurement of acidity, 7.0 being neutral.

picocuries per liter (pCi/L): Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

parts per billion (ppb): One part substance per billion parts water, or micrograms per liter.

parts per million (ppm): One part substance per million parts water, or milligrams per liter.

parts per trillion (ppt): One part substance per trillion parts water, or nanograms per liter.

Secondary Maximum Contaminant Level (SMCL): Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

TON: Threshold Odor Number

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

%: Percent

MEASUREMENTS

Parts Per Million



in a 10 gallon fish tank

Parts Per Billion



in a 10,000 gallon swimming pool

Parts Per Trillion



in 35 junior size Olympic pools

Water Quality Results

Virginia American Water conducts extensive monitoring to determine if your water meets all water quality standards. The detections of our monitoring are reported in the following tables. While most monitoring was conducted in 2023, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting the tables below, see the “Definition of Terms” on the previous page. Some unregulated substances are measured, but maximum contaminant levels have not been established by the government. These contaminants are shown for your information.

NOTE: Regulated contaminants not listed in this table were not found in the treated water supply.

LEAD AND COPPER MONITORING PROGRAM - At least 30 tap water samples collected at customers’ taps every 3 years

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Action Level (AL)	90 th Percentile	No. of Homes Sampled	Homes Above Action Level	Typical Source
Lead (ppb)	2023	Yes	0	15	<1	30	0	Corrosion of household plumbing systems
Copper (ppm)	2023	Yes	1.3	1.3	0.185	30	0	Corrosion of household plumbing systems

REVISED TOTAL COLIFORM RULE - At least 30 samples collected each month in the distribution system

Substance	Year Sampled	Compliance Achieved	MCLG	MCL	Total No. of Positive Samples	Typical Source
Total Coliform	2023	Yes	0	MCL = No more than 1 positive monthly sample	1	Naturally present in the environment
E. Coli	2023	Yes	0	TT = No confirmed samples	0	Human and animal fecal waste

NOTE: Coliforms are bacteria that are naturally present in the environment and are used as an indicator of the general bacteriological quality of the water. We are reporting the highest percentage of positive samples / highest number of positive samples in any month.

1. The Treatment Technique for Total Coliforms requires that if the maximum number of total coliform positive samples are exceeded a system assessment must be conducted, any sanitary defects identified, and corrective actions completed. Additional Level 1 Assessments or Level 2 Assessments are required depending on the circumstances.
2. The Treatment Technique for E. Coli requires that for any total coliform positive routine sample with one or more total coliform positive check samples and an E. coli positive result for any of the samples a Level 2 Assessment must be conducted, any sanitary defects identified, and corrective actions completed. The E. Coli MCL is exceeded if routine and repeat samples are total coliform-positive and either is E. coli-positive, or the system fails to take repeat samples following an E. coli-positive routine sample, or the system fails to analyze total coliform-positive repeat samples for E. coli.

DISINFECTION BYPRODUCTS - Collected in the Distribution System

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest LRAA	Range Detected	Typical Source
Total Trihalomethanes (TTHMs) (ppb)	2023	Yes	NA	80	47.9	24.6 to 60.1	By-product of drinking water disinfection
Haloacetic Acids (HAAs) (ppb)	2023	Yes	NA	60	18.5	6.0 to 25.6	By-product of drinking water disinfection
Chlorite (ppm)	2023	Yes	0.8	1.0	0.13	ND to 0.4	By-product of drinking water disinfection

NOTE: Compliance is based on the running annual average at each location (LRAA). The Highest LRAA reflects the highest average at any location and the Range Detected reflects all samples used to calculate the running annual average.

DISINFECTANTS - Collected in Treatment Facility and the Distribution System

Substance (with units)	Year Sampled	Compliance Achieved	MRDLG	MRDL	Chlorine Residual	Range Detected	Typical Source
Entry Point Chlorine Residual VAWC ¹ (ppm)	2023	Yes	4	4	1.97	1.67 to 3.68	Water additive used to control microbes
Entry Point Chlorine Residual ARWA ² (ppm)	2023	Yes	4	4	3.2	2.3 to 3.8	Water additive used to control microbes
Distribution System Chlorine Residual ³ (ppm)	2023	Yes	4	4	2.0	1.2 to 3.4	Water additive used to control microbes

1- Data represents the lowest residual entering the distribution system from our water treatment plant.

2- Data represents weekly analysis of transmission system samples

TREATMENT BYPRODUCTS PRECURSOR REMOVAL - Collected at the Treatment Plant

Substance	Year Sampled	Compliance Achieved	MCLG	MCL	Lowest Quarterly Running Annual Average	Range	Number of Quarters Out of Compliance	Typical Source
Total Organic Carbon (TOC)-VAWC	2023	Yes	NA	TT	1.30	1.05 to 1.91	0	Naturally present in the environment
Total Organic Carbon (TOC)-ARWA	2023	Yes	NA	TT	1.37	1.24 to 1.46	0	Naturally present in the environment

A value greater than or equal to 1.0 indicates that the water system is in compliance with TOC removal requirements.

TURBIDITY - Continuous Monitoring at the Treatment Plant

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Single Measurement and Lowest Monthly % of Samples ≤ 0.3 NTU	Typical Source
Turbidity (NTU) VAWC	2023	Yes	0	TT: Single result >1 NTU	0.236	Soil runoff
		Yes	NA	TT: At least 95% of samples ≤ 0.3 NTU	100%	Soil runoff
Turbidity (NTU) ARWA	2023	Yes	0	TT: Single result >1 NTU	0.089	Soil runoff
		Yes	NA	TT: At least 95% of samples ≤ 0.3 NTU	100%	Soil runoff

REGULATED SUBSTANCES - Collected at the Treatment Plant

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL/SMCL	Highest Compliance Result- VAWC	Range Detected VAWC	Highest Compliance Result- ARWA	Range Detected ARWA	Typical Source
Beta / Photon emitters (pCi/L)	2021 VAWC 2020 ARWA	Yes	0	50	2.0	NA	1.9	NA	Decay of natural and synthetic deposits
Radium (pCi/L)	2021 VAWC 2020 ARWA	Yes	0	5	0.8	NA	0.2	NA	Erosion of natural deposits
Alpha emitters (pCi/L)	2020 ARWA	Yes	0	15	NA	NA	<0.39	NA	Erosion of natural and synthetic deposits
Nitrate (ppm)	2023	Yes	10	10	0.15	NA	0.09	NA	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits
Fluoride (ppm)	2023	Yes	4	4	0.82	NA	1.04	ND to 1.04	Added to water to promote healthy teeth
Barium (ppm)	2023 ARWA	Yes	2	2	NA	NA	0.023	NA	Erosion of natural deposits, discharge of drilling waste and metal refineries
Chlorine Dioxide	2023 ARWA	Yes	0.8	0.8	NA	NA	<0.10	<0.10 to 0.10	Additive used to control microbes, used during pretreatment only

UNREGULATED CONTAMINANT MONITORING

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is necessary. Every five years, the EPA issues a new list of no more than 30 unregulated contaminants to be monitored.

ADDITIONAL WATER QUALITY PARAMETERS OF INTEREST - Water Leaving from the Treatment Facility and the Distribution System							
Parameter	Units	Year Sampled	Average Result VAWC	Range Detected VAWC	Average Result ARWA	Range Detected ARWA	Typical Source
Sodium ¹	ppm	2023	21.8	NA	17.7	NA	Erosion of natural deposits
Bromochloroacetic Acid	ppb	2023	1.55	ND to 2.5	NA	NA	By-product of drinking water disinfection
Bromodichloromethane	ppb	2023	10.02	6.2 to 12.7	3.1	NA	By-product of drinking water disinfection
Chlorodibromomethane	ppb	2023	1.99	0.7 to 3.2	<0.50	NA	By-product of drinking water disinfection
Chloroform	ppb	2023	41.01	30.4 to 49.2	18	NA	By-product of drinking water disinfection
Chlorate	ppb	2023	0.65	0.38 to 1.17	NA	NA	By-product of drinking water disinfection
Dichloroacetic Acid	ppb	2023	7.14	2.8 to 12.1	NA	NA	By-product of drinking water disinfection
Trichloroacetic Acid	ppb	2023	6.11	2.0 to 17.8	NA	NA	By-product of drinking water disinfection
Chlorite	ppm	2023	0.044	ND to 0.31	0.14	ND to 0.45	By-product of drinking water disinfection
Bromide	ppb	2023	0.004	ND to 0.03	NA	NA	By-product of drinking water disinfection
Calcium	ppm	2023	11	NA	NA	NA	Naturally occurring
Chloride	ppm	2023	13.7	NA	NA	NA	Naturally occurring
Magnesium	ppm	2023	3	NA	NA	NA	Naturally occurring
Ortho-Phosphate	ppm	2023	0.40	NA	NA	NA	Naturally occurring and water treatment additive
Sulfate	ppm	2023	29.9	NA	23.3	NA	Naturally occurring
Zinc	ppm	2023	0.12	NA	NA	NA	Naturally occurring and water treatment additive
pH	NA	2023	7.5	6.5 to 9.2	NA	NA	Measure of the acid / base properties of water
Total Hardness	ppm	2023	75	37 to 135	NA	NA	Natural calcium / magnesium content in the water
Total Alkalinity	ppm	2023	53	33 to 80	NA	NA	Ability of water to neutralize acid and bases and maintain a stable pH

1- For healthy individuals, the sodium intake from water is not important because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be of concern to individuals on a sodium restricted diet. Sodium occurs naturally in groundwater. However, sources such as road salt, water softeners, natural underground salt deposits, pollution from septic systems as well as saltwater intrusion due to proximity to the ocean, are often causes of elevated levels in drinking water supplies.

UNREGULATED CONTAMINANT MONITORING RULE (UCMR) 5

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is necessary. Every five years, the EPA issues a new list of no more than 30 unregulated contaminants to be monitored. If you are interested in examining the results, please contact Kelly Ryan at 804-446-9822 or Kelly.ryan@amwater.com. The table below provides information on the unregulated contaminants that were detected in the water system under the current round of monitoring.

UNREGULATED PERFLUORINATED COMPOUNDS							
Parameter	Year Sampled	Units	Average Result	Range Detected	Proposed U.S. EPA MCL	Hazard Index Calculation	Typical Source
Perfluorooctanoic Acid (PFOA)	2023	ppt	ND	NA	4.0	NA	Manufactured chemical (s); used in household goods for stain, grease, heat and water resistance
Perfluorooctanesulfonic Acid (PFOS)	2023	ppt	ND	NA	4.0	NA	
Perfluorohexane sulfonic Acid (PFHxS)	2023	ppt	ND	NA	1.0 Hazard Index ¹ (unitless)	0	
Hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX chemicals)	2023	ppt	ND	NA			
Perfluorobutanesulfonic acid (PFBS)	2023	ppt	ND	NA			
Perfluorononanoic Acid (PFNA)	2023	ppt	ND	NA			
Perfluorohexanoic acid (PFHxA)	2023	ppb	0.0003	ND to 0.0033	N/A	N/A	
Perfluoropentanoic acid (PFPeA)	2023	ppb	0.0004	ND to 0.0038	N/A	N/A	

¹ For more information on the U.S. EPA's proposed PFAS drinking water standards, including the Hazard Index, please visit <https://www.epa.gov/pfas>

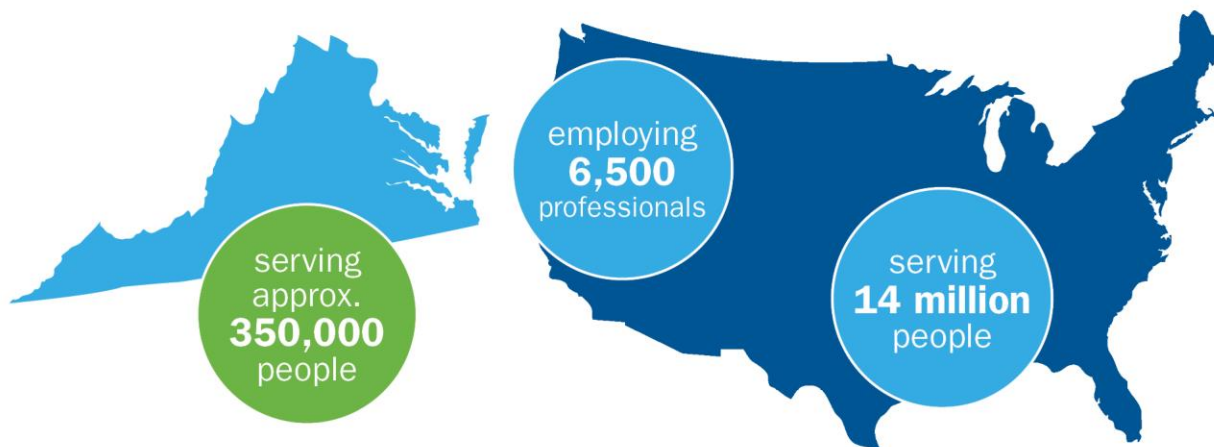
PFAS chemicals are unique, so two PFAS chemicals at the same level typically do not present the same risk. Therefore, you should not compare the results for one PFAS chemical against the results of another.



About Us

American Water (NYSE: AWK) is the largest regulated water and wastewater utility company in the United States. With a history dating back to 1886, We Keep Life Flowing® by providing safe, clean, reliable and affordable drinking water and wastewater services to more than 14 million people with regulated operations in 14 states and on 18 military installations. American Water's 6,500 talented professionals leverage their significant expertise and the company's national size and scale to achieve excellent outcomes for the benefit of customers, employees, investors and other stakeholders.

Virginia American Water, a subsidiary of American Water, is the largest investor-owned water utility in the state, providing high-quality and reliable water services to approximately 350,000 people. For more information, visit virginiaamwater.com and follow us on X, Facebook and YouTube.



VIRGINIA AMERICAN WATER FACTS AT A GLANCE

- **COMMUNITIES SERVED**
43 communities including Alexandria, Dale City, Hopewell, Waverly and in and around Virginia's Northern Neck
- **PEOPLE SERVED**
Approximately 350,000 people
- **EMPLOYEES**
Approx. 115
- **TREATMENT FACILITIES**
Water: One surface water treatment plant and 36 active groundwater systems
Wastewater: Two wastewater treatment plants
- **MILES OF PIPELINE**
760 miles of water pipe and 193 miles wastewater pipe
- **STORAGE AND TRANSMISSION**
98 water storage tanks;
53 water pumping stations;
2 wastewater pumping stations
- **SOURCE OF SUPPLY**
51% surface water
1% groundwater
48% purchased water

How to Contact Us

If you have any questions about this report, your drinking water, or service, please contact Virginia American Water's Customer Service Center Monday to Friday, 7 a.m. to 7 p.m. at 1-800-452-6863.

WATER INFORMATION SOURCES

Virginia American Water
www.virginiaamwater.com

Virginia Department of Health:
www.vdh.virginia.gov

Virginia Department of Environmental Quality:
www.deq.virginia.gov

United States Environmental Protection Agency (USEPA):
www.epa.gov/safewater

Safe Drinking Water Hotline: 1 (800) 426-4791

Centers for Disease Control and Prevention: www.cdc.gov

American Water Works Association: www.awwa.org

Water Quality Association: www.wqa.org

National Library of Medicine/National Institute of Health:
www.nlm.nih.gov/medlineplus/drinkingwater.html

This report contains important information about your drinking water. Translate it, or speak with someone who understands it at 1-800-452-6863.

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Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien al 1-800-452-6863.

Ntawm no yog ib co lus qhia tseem ceeb heev txog koj cov dej seb huv npaum li cas. Yog tias koj xav tau kev pab txhais cov lus qhia no, thov hu rau peb ntawm 1-800-452-6863.

這是關於您的水質的十分重要的資訊。如果您需要幫助翻譯此資訊請致電 **1-800-452-6863** 與我們聯繫。

आपके पानी की गुणवत्ता के बारे में यह बहुत महत्वपूर्ण सूचना है। यदि इस सूचना के अनुवाद के लिए आपको सहायता की जरूरत हो, तो कृपया **1-800-452-6863** र हमें काल करें।

Это очень важная информация о качестве Вашей воды. Если Вам требуется перевод этой информации, позвоните нам по телефону 1-800-452-6863.

Ito ay isang napakahalagang impormasyon tungkol sa kalidad ng iyong tubig. Kung iyong kailangan ng tulong sa pagsalin ng impormasyon na ito, mangyaring tumawag sa amin sa 1-800-452-6863.

Đây là thông tin rất quan trọng về chất lượng nước của quý vị. Nếu quý vị cần thông dịch thông tin này, xin gọi chúng tôi theo số 1-800-452-6863.