2022 Annual
WATER QUALITY REPORT

FORT BELVOIR
PWS ID: VA6059450

QUALITY. ONE MORE WAY WE KEEP LIFE FLOWING.
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.
American Water’s Military Services Group owns and operates water and wastewater utilities under the Utilities Privatization program and proudly provides water and wastewater services to military communities around the country, including yours. Our Company’s Vision – “We Keep Life Flowing” - drives everything we do for you, our customers. To reinforce our vision and maintain your trust, it’s important that we share with you information about our commitment to providing high-quality water service.

I am pleased to provide you with the 2022 Annual Water Quality Report with detailed information about the source and quality of your drinking water. We have prepared this report using the data from water quality testing conducted for your local water system from January through December 2022.

With equal importance, we place a strong focus on acting as stewards of our environment. In all the communities we serve, we work closely with the local directorates of public works, civil engineering squadrons, local environmental departments, and state regulatory agencies to protect environmental quality, educate customers on how to use water wisely, and ensure the high quality of your drinking water every day.

At American Water, our values – safety, trust, environmental leadership, teamwork, and high performance – mean more than simply making water available “on-demand”. It means every employee working to deliver a key resource for public health, fire protection, the economy, and the overall quality of life we all enjoy. For more information or for additional copies of this report, visit us online at www.amwater.com.

Steve Curtis
Military Services Group
American Water
Just as American Water MSG-Ft Belvoir are 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 $1.04 million to improve our water and wastewater treatment and pipeline systems.

**EVERY STEP OF THE WAY.**
Our team monitors and tests 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. American Water is recognized as an industry leader in water quality and works 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.**
Our team also has access to American Water’s Central Laboratory in Belleville, Illinois, which conducts sophisticated drinking water testing and analysis. American Water scientists refine testing procedures, innovate new methods, and set new standards for detecting potentially new contaminants—even before regulations are in place.

**MAINTAINING QUALITY FOR FUTURE GENERATIONS.**
Just as American Water MSG-Ft Belvoir are 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 $1.04 million to improve our water and wastewater treatment and pipeline systems.
WHERE YOUR WATER COMES FROM

Fort Belvoir purchases its water supply from Fairfax Water. Fairfax Water is Virginia’s largest water utility, and a large portion of Northern Virginia’s water comes from Fairfax Water. The two primary sources of water are the Potomac River, which feeds the James J. Corbalis Jr. Treatment Plant and the Occoquan Reservoir, which feeds the Frederick P. Griffith Jr. Treatment Plant.

Both plants utilize multi-faceted and advanced water treatment technologies such as coagulation, sedimentation, carbon filtration, ozone, chlorine and the addition of corrosion inhibitors.

Disinfection treatment:

Water supplies from Fairfax Water are treated with chloramines to maintain water quality in the distribution system. Chloramines are a type of chlorine that incorporate ammonia to create a longer lasting residual in the distribution system. Additionally, chloramines help to minimize TTHMs and disinfection byproducts. The normal exception to the regular treatment method of chloramines is the annual conversion to free chlorine during flushing season.

QUICK FACTS ABOUT THE FORT BELVOIR SYSTEM

Communities served: Fort Belvoir

Water source: Fairfax water, which pulls from the Potomac River and the Occoquan Reservoir

Average amount of water supplied to customers on a daily basis: 1.15 million gallons per day
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.

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**CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:**

<table>
<thead>
<tr>
<th>Contaminant Type</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Microbial Contaminants</strong></td>
<td>such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.</td>
</tr>
<tr>
<td><strong>Inorganic Contaminants</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Pesticides and Herbicides</strong></td>
<td>which may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.</td>
</tr>
<tr>
<td><strong>Organic Chemical Contaminants</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Radioactive Contaminants</strong></td>
<td>which can be naturally occurring or may be the result of oil and gas production and mining activities.</td>
</tr>
</tbody>
</table>

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**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).
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 waterways 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 in the trash.
- 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 the Virginia Department of Health or the Virginia Department of Environmental Quality. Emergencies can be called into DEQ at 1-800-468-8892.

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. We have developed a Source Water Protection Plan under Virginia Source Water Protection Plan is a voluntary program to identify and address potential threats to drinking water supplies. Stakeholder involvement is an important part of the program. We partner with DEP to host annual meetings to review progress on the plan with stakeholders. We also welcome input on the plan or local water supplies through our online feedback form.

FOR MORE INFORMATION
To learn more about your water supply and local activities, visit us online at www.amwater.com
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.

### About Lead

**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.

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

Our 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.

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.

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### Utility-Owned vs. Customer-Owned Portion of the Service Line

![Diagram showing Water Main and Shut Off Valve, with Utility-Owned Service Line and Customer-Owned Service Line and Internal Plumbing distinguished.]

*Please note: This diagram is a generic representation. Variations may apply.*
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 1-800-452-6864 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 Fort Belvoir System receives fluoridated water from Fairfax Water. The Corbalis and Griffith Treatment Plants adjusted to achieve an optimal fluoride level of 0.70 parts per million (ppm). The lowest level in 2022 was .63 ppm and the highest level was .76 ppm, which comply with Virginia’s Water Fluoridation standards. If you have any questions on fluoride, please call American Water’s Customer Service Center at 1-800-452-6863.

NITRATES
Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant’s blood to carry oxygen, resulting in serious illness. Symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant or you are pregnant, you should ask for advice from your health care provider.
PFAS
Per- and polyfluoroalkyl substances (PFAS) are manufactured chemicals used in many household products including nonstick cookware (e.g., Teflon™), stain repellants (e.g., Scotchgard™), and waterproofing (e.g., GORE-TEX™). They are also used in industrial applications such as in firefighting foams and electronics production. There are thousands of PFAS chemicals, and they persist in the environment. Two well-known PFAS chemicals are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). These were phased out of production in the United States and replaced by hexafluoropropylene oxide-dimer acid (commonly known as GenX), perfluorobutane sulfonic acid (PFBS) and others.

In 2024, American Water- Fort Belvoir will be checking our drinking water for 29 PFAS chemicals through our participation in the U.S. EPA Unregulated Contaminant Monitoring Rule program, or UCMR. Through the UCMR program, water systems collect data on a group of contaminants that are currently not regulated in drinking water at the federal level. U.S. EPA uses this information when deciding if it needs to create new drinking water limits.

The science and regulation of PFAS and other contaminants is always evolving, and American Water strives to be a leader in research and development. PFAS contamination is one of the most rapidly changing areas in the drinking water field. We have invested in our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critically important to addressing this issue.

**UNREGULATED CONTAMINANT MONITORING RULE (UCMR)**
The EPA created the Unregulated Contaminants Monitoring Rule (UCMR) to assist them in determining the occurrence of unregulated contaminants in drinking water and whether new regulations are warranted. The first Unregulated Contaminants Monitoring Rule (UCMR1) testing was completed in 2003 for a list of contaminants specified by the EPA. Unregulated contaminants are those for which the EPA has not established drinking water standards. UCMR2 testing was conducted between November 2008 and August 2009, and UCMR3 assessment monitoring was conducted between January 2013 and December 2016. The fourth list of contaminants to monitor as part of the UCMR was published by the EPA in December 2016. UCMR4 testing began in 2018 and was completed in 2020. The results from the UCMR monitoring are reported directly to the EPA. The results of this monitoring are incorporated in the data tables in this report as appropriate. For more information, contact our Customer Service Center at 1-800-452-6863.
Cryptosporidium is a microbial pathogen sometimes found in surface water throughout the United States. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Fairfax Water consistently maintains its filtration process in accordance with regulatory guidelines to maximize removal efficiency. Our monitoring has indicated the occasional presence of these organisms in the source water. Current test methods do not allow us to determine whether 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. It may be spread through means other than drinking water, such as other people, animals, water, swimming pools, fresh food, soils and any surface that has not been sanitized after exposure to feces.

Fairfax Water has completed monitoring the Potomac River and Occoquan Reservoir for compliance with Round 2 of the EPA Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR Round 2). The EPA created this rule to provide for increased protection against microbial pathogens, such as Cryptosporidium, in public water systems that use surface water sources. Fairfax Water’s LT2ESWTR Round 2 monitoring program began in April 2015 and involved the collection of one sample from water treatment plant sources each month for a period of two years. Monitoring for compliance with the LT2ESWTR Round 2 was completed in March 2017.

Under the LT2ESWTR Round 2, the average Cryptosporidium concentration determines whether additional treatment measures are needed. A Cryptosporidium concentration of 0.075 oocysts/Liter triggers additional water treatment measures. Fairfax Water’s raw water Cryptosporidium concentrations were below this threshold. Results for LT2ESWTR Round 2 monitoring of the Potomac River and Occoquan Reservoir for the period of 2015-2017 are as follows:

<table>
<thead>
<tr>
<th>Source (before treatment)</th>
<th>Mean Cryptosporidium concentration (oocysts/Liter)</th>
<th>Final Bin Assignment under LT2ESWTR Round 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potomac River</td>
<td>0.000</td>
<td>Bin 1 (no additional treatment required)</td>
</tr>
<tr>
<td>Occoquan Reservoir</td>
<td>0.007</td>
<td>Bin 1 (no additional treatment required)</td>
</tr>
</tbody>
</table>

Fairfax Water – Potomac River & Occoquan Reservoir
2022 Statement on Cryptosporidium Monitoring
WATER QUALITY STATEMENT

We are pleased to report that during calendar year 2022, 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 2022. 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.
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.

**DDW:** Division of Drinking Water

**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 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. Secondary MCLs (SMCL) are set to protect the odor, taste, and appearance of drinking water.

**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 do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**MFL:** Million fibers per liter.

**micromhos per centimeter (μmhos/cm):** A measure of electrical conductance.

**NA:** Not applicable

**N/A:** No data available

**ND:** Not detected

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

**Notification Level (NL):** The concentration of a contaminant, which, if exceeded, requires notification to DDW and the consumer. Not an enforceable standard.

**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.

**Primary Drinking Water Standard (PDWS):** MCLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

**RAA:** Running Annual Average

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

**SWRCB:** State Water Resources Control Board

**TON:** Threshold Odor Number

**Total Dissolved Solids (TDS):** An overall indicator of the amount of minerals in water.

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

**Variances and Exemptions:** State or EPA permission not to meet an MCL or utilize a treatment technique under certain conditions.

**%:** Percent
American Water Military Services Group 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 2022, 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

<table>
<thead>
<tr>
<th>Substance</th>
<th>Year Sampled</th>
<th>Compliance Achieved</th>
<th>MCLG</th>
<th>Action Level (AL)</th>
<th>90th Percentile</th>
<th>Sites Above Action Level</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead (ppb)</td>
<td>2021</td>
<td>Yes</td>
<td>0</td>
<td>15</td>
<td>0.46</td>
<td>0</td>
<td>Corrosion of household plumbing systems.</td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>2021</td>
<td>Yes</td>
<td>1.3</td>
<td>1.3</td>
<td>0.102</td>
<td>0</td>
<td>Corrosion of household plumbing systems.</td>
</tr>
</tbody>
</table>

### REVISED TOTAL COLIFORM RULE

<table>
<thead>
<tr>
<th>Substance</th>
<th>Year Sampled</th>
<th>Compliance Achieved</th>
<th>MCLG</th>
<th>MCL</th>
<th>Highest Percentage (Coliform OR Total Number of Samples Positive (E.Coli))</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Coliform</td>
<td>2022</td>
<td>Yes</td>
<td>0</td>
<td>*TT¹</td>
<td>8.5%</td>
<td>Naturally present in the environment.</td>
</tr>
<tr>
<td>E. Coli</td>
<td>2022</td>
<td>Yes</td>
<td>0</td>
<td>TT² and No confirmed samples³</td>
<td>0</td>
<td>Human and animal fecal waste.</td>
</tr>
</tbody>
</table>

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.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that are found.

During the past year, we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. In addition, we were required to take zero corrective actions.

¹ The Treatment Technique for Total Coliforms requires that if the maximum percentage OR 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 routine sample that is positive for total coliform where either the original sample or one of the repeat check samples is also positive for E. Coli, a Level 2 Assessment must be conducted, any sanitary defects identified, and corrective actions completed.

³ 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 Fort Belvoir Distribution System

<table>
<thead>
<tr>
<th>Substance (with units)</th>
<th>Year Sampled</th>
<th>Compliance Achieved</th>
<th>MCLG</th>
<th>MCL</th>
<th>Highest LRAA*</th>
<th>Range Detected*</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Trihalomethanes (TTHMs) (ppb)</td>
<td>2022</td>
<td>Yes</td>
<td>0</td>
<td>80</td>
<td>29.915</td>
<td>6.92 to 66.9</td>
<td>By-product of drinking water disinfection.</td>
</tr>
<tr>
<td>Haloacetic Acids (HAAs) (ppb)</td>
<td>2022</td>
<td>Yes</td>
<td>0</td>
<td>60</td>
<td>22.8</td>
<td>5.58 to 62.0</td>
<td>By-product of drinking water disinfection.</td>
</tr>
</tbody>
</table>

*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 from this year used to calculate the running annual average.

### DISINFECTANTS- Collected in the Fort Belvoir Distribution System

<table>
<thead>
<tr>
<th>Substance (with units)</th>
<th>Year Sampled</th>
<th>Compliance Achieved</th>
<th>MCLG</th>
<th>MCL</th>
<th>Highest Compliance Result¹</th>
<th>Range Detected¹</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Chlorine (ppm) (Distribution System)</td>
<td>2022</td>
<td>Yes</td>
<td>MRDLG = 4</td>
<td>4</td>
<td>2.40</td>
<td>.09 to 3.69</td>
<td>Water additive used to control microbes.</td>
</tr>
</tbody>
</table>

1 - Data represents the highest running annual average of monthly averages of chlorine residual samples measured throughout our distribution system, computed quarterly. The Range Detected reflects all samples from this year used to calculate the running annual average.

### TREATMENT BYPRODUCTS PRECURSOR REMOVAL- Collected at Fairfax Water Treatment Plants

<table>
<thead>
<tr>
<th>Substance (with units)</th>
<th>Year Sampled</th>
<th>Compliance Achieved</th>
<th>MCLG</th>
<th>MCL</th>
<th>Quarterly Running Annual Average²</th>
<th>Range Detected</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Organic Carbon (TOC) (Removal Factor)</td>
<td>2022</td>
<td>Yes</td>
<td>NA</td>
<td>TT² (ratio)</td>
<td>1.3</td>
<td>1.1 to 1.5</td>
<td>Naturally present in the environment.</td>
</tr>
</tbody>
</table>

Total Organic Carbon has no health effects. However, it provides a medium for the formation of disinfection by-products. These by-products include trihalomethanes and haloacetic acids. Compliance with the treatment technique reduces the formation of these disinfection by-products.

2-TT²=Treatment Technique

3- Quarterly Running Annual Average (QRAA) of the monthly ratio of actual Total Organic Carbon removal versus required Total Organic Carbon removal between source and treated waters. QRAA is to be ≥ 1.0 to be in compliance.
### Turbidity-Collected at the Fairfax Water Treatment Plants

<table>
<thead>
<tr>
<th>Turbidity (NTU)</th>
<th>Year Sampled</th>
<th>Compliance Achieved</th>
<th>MCLG</th>
<th>MCL</th>
<th>Highest Single Measurement</th>
<th>Lowest Monthly % Samples Meeting Treatment Technique Turbidity Limit</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turbidity (NTU)</td>
<td>2022</td>
<td>Yes</td>
<td>NA</td>
<td>TT ¹ (NTU)²</td>
<td>0.35</td>
<td>100%</td>
<td>Soil Runoff</td>
</tr>
</tbody>
</table>

Turbidity levels are measured during the treatment process after the water has been filtered, but before disinfection. The turbidity level of filtered water shall be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month and shall at no time exceed 1 NTU.

1-TT = Treatment Technique
2-NTU = Nephelometric Turbidity Unit

### Regulated Substances-Collected at the Fairfax Water Treatment Plants

<table>
<thead>
<tr>
<th>Substance (with units)</th>
<th>Year Sampled</th>
<th>Compliance Achieved</th>
<th>MCLG</th>
<th>MCL</th>
<th>DL (Detection Level)</th>
<th>Average</th>
<th>Range</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta/photon Emitters (pCi/L)</td>
<td>2019</td>
<td>Yes</td>
<td>0</td>
<td>50 ³</td>
<td>4.00</td>
<td>2.28 ⁴</td>
<td>ND to .78</td>
<td>Decay of natural and man-made deposits</td>
</tr>
<tr>
<td>Barium (ppm)</td>
<td>2022</td>
<td>Yes</td>
<td>2</td>
<td>2</td>
<td>.001</td>
<td>.035</td>
<td>ND to .050</td>
<td>Discharge of drilling wastes; discharge from metal refineries; erosion from natural deposits</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>2022</td>
<td>Yes</td>
<td>4</td>
<td>4</td>
<td>NA</td>
<td>.70</td>
<td>.63 to .76</td>
<td>Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories</td>
</tr>
<tr>
<td>Nitrate [as Nitrogen] (ppm)</td>
<td>2022</td>
<td>Yes</td>
<td>10</td>
<td>10</td>
<td>.01</td>
<td>1.09</td>
<td>.50 to 1.85</td>
<td>Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits</td>
</tr>
<tr>
<td>Nitrite [as Nitrogen] (ppm)</td>
<td>2022</td>
<td>Yes</td>
<td>1</td>
<td>1</td>
<td>.004</td>
<td>ND</td>
<td>ND to .012</td>
<td>Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits</td>
</tr>
<tr>
<td>Sodium</td>
<td>2022</td>
<td>Yes</td>
<td>NA ⁵</td>
<td>NA ⁵</td>
<td>1.0</td>
<td>26.7</td>
<td>11.9 to 64.2</td>
<td>Erosion of natural deposits; Runoff from road deicing chemicals; Discharge from industrial sources; Wastewater treatment plant effluent</td>
</tr>
</tbody>
</table>

3-The MCL for the Beta particles is written as 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for Beta particles.
4-This radioactive contaminant result is above the analysis-specific detection limit but below the minimum detection limits (DL) prescribed in the Consumer Confidence Rule as stated in 40 CFR 141.151 (d).
5-There are no State or Federal Limits established for this parameter.
**UNREGULATED CONTAMINANT MONITORING RULE**

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. Please note that UCMR tested substances: Germanium, Ethoprop, alpha-Hexachlorocyclohexane, Dimethipin, Chlorpyrifos, Profenofos, Tribufos, Oxyfluorfen, Tebuconazole, Total Permethrin (cis & trans), 2-Propen-1-ol, 1-Butanol, 2-Methoxyethanol, o-Toluidine, Quinoline, and Butylated Hydroxyanisole (BHA) were tested at the entry point of the Fort Belvoir system as well as Monochloroacetic Acid in the distribution system. They are not listed below as they showed no detectable levels.

### ADDITIONAL WATER QUALITY PARAMETERS OF INTEREST (UCMR4)–Collected at the Fort Belvoir Distribution System

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Average Result</th>
<th>Range Detected</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromochloroacetic Acid</td>
<td>ppb</td>
<td>2.68</td>
<td>2.1 to 3.2</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Bromodichloroacetic acid</td>
<td>ppb</td>
<td>2.60</td>
<td>1.5 to .45</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Chlorodibromoacetic acid</td>
<td>ppb</td>
<td>.99</td>
<td>.47 to 1.2</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Dibromoacetic Acid</td>
<td>ppb</td>
<td>.44</td>
<td>ND to .78</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Dichloroacetic Acid</td>
<td>ppb</td>
<td>7.86</td>
<td>4.1 to 15</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Monobromoacetic Acid</td>
<td>ppb</td>
<td>.04</td>
<td>ND to .32</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Total Haloacetic Acids</td>
<td>ppb</td>
<td>16.34</td>
<td>7.2 to 33</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Total Haloacetic Acids - Br</td>
<td>ppb</td>
<td>6.61</td>
<td>5.2 to 8.7</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Total Haloacetic Acids-UCMR4</td>
<td>ppb</td>
<td>22.38</td>
<td>12 to 42</td>
<td>By-product of drinking water disinfection</td>
</tr>
<tr>
<td>Trichloroacetic Acid</td>
<td>ppb</td>
<td>7.96</td>
<td>2.3 to 18</td>
<td>By-product of drinking water disinfection</td>
</tr>
</tbody>
</table>

### ADDITIONAL WATER QUALITY PARAMETERS OF INTEREST (UCMR4)–Collected at the Fort Belvoir Distribution System Entry Point

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Average Result</th>
<th>Range Detected</th>
<th>Typical Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese*</td>
<td>ppb</td>
<td>1.6</td>
<td>.9 to 2.3</td>
<td>Naturally-occurring elemental metal; largely used in aluminum alloy production. Essential dietary element.</td>
</tr>
</tbody>
</table>

*Manganese has a secondary maximum contaminant level of 50 ppb*
About Us

With a history dating back to 1886, American Water Works Company, Inc. (NYSE: AWK) is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 6,800 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an 15 million people in 46 states. American Water provides safe, clean, affordable and reliable water services to our customers to make sure we keep their lives flowing.

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

You may also contact:

American Water Military Services Group - Fort Belvoir
6035 16th Street, Building 739
P.O Box 1280
Fort Belvoir, VA, 22060

Or by phone at: 571-339-8087

WATER INFORMATION SOURCES

American Water
https://www.amwater.com/corp/Products-Services/Military-Services/water-quality-reports

Virginia Department of Health Office of Drinking Water
https://www.vdh.virginia.gov/drinking-water/

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

Safe Drinking Water Hotline
(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

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 tiás koj xav tau kev ptxhais 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。

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Ito ay isang napakahalagang impormasyon tungkol sa kalidad ng iyong tubig. Kung iyong kailangan ng tulong sa pansalubong 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.