2018 Annual Water Quality Report

Fort A. P. Hill
PWS ID: VA6033251

This report contains important information about your drinking water. If you do not understand it, please have someone explain or translate it for you.

Este informe contiene información muy importante sobre su agua potable. Si no lo comprende, favor acudir a alguien que se lo pueda traducir o explicar.

Continuing Our Commitment

A Message From Military Services Group President Mark K McDonough

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 2018 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 2018. You'll find that we supply water that surpasses or meets all federal and state water quality regulations.

With equal importance, we place a strong focus on acting as stewards of our environment. In all of 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 enjoy – We Keep Life Flowing. For more information or for additional copies of this report, visit us online at www.amwater.com

Sincerely,

Mark K McDonough

President – American Water's Military Services Group

What is a Water Quality Report?

To comply with Virginia Department of Health and the U.S. Environmental Protection Agency (EPA) regulations, American Water issues a report annually describing the quality of your drinking water. The purpose of this report is to provide you an overview of last year's (2018) drinking water quality. It includes details about where your water comes from and what it contains. We hope the report will raise your understanding of drinking water issues and awareness of the need to protect your drinking water sources. For more information, please contact Gary Manville at 804-632-1403.

How is Your Water Treated?

Your water is treated by adding a disinfectant to protect you against microbial contaminants. The Safe Drinking Water Act (SDWA) required states to develop a Source Water Assessment (SWA) for each public water supply that treats and distributes raw source water in order to identify potential contamination sources. The Virginia Department of Health has conducted a source water assessment of the Fort A.P Hill Headquarters water system. Both of the wells used to supply Headquarters Camp water distribution system were found to be of low susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment. More information concerning this assessment can be obtained by contacting Gary Manville at 804-632-1403.

Where Does My Water Come From?

The source of your drinking water is two ground water wells located in the headquarters area of Fort A.P. Hill which draw ground water from an underground aquifer.

Share This Report

You are encouraged to share this important information with water users who are not customers of Fort A.P. Hill American Water and therefore do not receive this report directly.

Water Conservation Tips

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

Information About Lead

Is there lead in my water?

Although we regularly test lead levels in your drinking water, it is possible that lead and/or copper levels at your home are higher because of materials used in your plumbing. If present, elevated levels of lead can cause serious 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. Fort A.P. Hill. 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 and copper 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 at 1-800-426-4791 or http://www.epa.gov/safewater/lead.

- We take steps to reduce the potential for lead to leach from your pipes into the water. This is accomplished by maintaining the quality of your water leaving our treatment facilities. There are steps that you can take to reduce your household's exposure to lead in drinking water.

Water Information Sources

The Military Services Group of American Water provides water and wastewater contract services to military installations across the country as part of the federal government's Utility Privatization Program. It operates and maintains the water and/or wastewater assets at Fort A.P. Hill, VA., Fort Sill, OK., Fort Leavenworth, KS., Scott Air Force Base, Ill., Fort Rucker, AL., Fort Meade, MD., Fort Belvoir, VA., Fort Hood, TX, Fort Polk, LA., Picatinny Arsenal, NJ., Hill Air Force Base, UT and Vandenberg Air Force Base, CA., Wright-Patterson Air Force Base, OH and Fort Leonard Wood, MO.

Fort A.P. Hill American Water O&M Military Services Group provides water service to approximately 198 customers at the Headquarters system located on Fort A.P. Hill, Caroline County, Virginia. Fort A.P. Hill is part of American Water. With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 7,100 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to more than 14 million people in 46 states and Ontario, Canada. American Water provides safe, clean, affordable and reliable water services to our customers to make sure we keep their lives flowing. For more information, visit amwater.com and follow American Water on Twitter, Facebook and LinkedIn.

The web sites of US EPA Office of Water, the Centers for Disease Control and Prevention, and Virginia Department of Health provide a substantial amount of information on many issues relating to water resources, water conservation and public health. You may visit these sites as well as American Water's website at the following addresses:

United States Environmental Protection Agency
www.epa.gov/safewater

Virginia Department of Health
www.vdh.state.va.us

American Water
www.amwater.com

American Water Works Association
www.awwa.org

Safe Drinking Water Hotline: (800) 426-4791

Substances Expected to be in Drinking Water

To ensure that tap water is of high quality, U.S. Environmental Protection Agency prescribes regulations limiting the amount of certain substances in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our water system tested a minimum of 1 sample per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

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 EPA's Safe Drinking Water Hotline (800-426-4791).

The source of drinking water (both tap water and bottled water) includes 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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, or 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.
For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Centers for Disease Control and Prevention) 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) or by calling our Customer Service Center at (800) 685-8660.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

How to Read the Data Tables

American Water conducts extensive monitoring to ensure that your water meets all water quality standards. The results of our monitoring are reported in the following tables. While monitoring was conducted in 2017, Virginia Department of Health requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. For help with interpreting this table, see the "Table Definitions" section.

Starting with a **Substance**, read across. **Year Sampled** is usually in 2017 or year prior. **MCL** shows the highest level of substance (contaminant) allowed. **MCLG** is the goal level for that substance (this may be lower than what is allowed). **Average Amount Detected** represents the measured amount (less is better). **Range** tells the highest and lowest amounts measured. A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements. **Typical Source** tells where the substance usually originates.

Unregulated substances are measured, but maximum allowed contaminant levels have not been established by the government.

Table Definitions and Abbreviations

Action Level: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
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.
MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MRDL (Maximum Residual Disinfectant Level): The highest level of disinfectant routinely allowed in drinking water. Addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG (Maximum Residual Disinfectant Level Goal): The level of 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 contamination.
mrem/year (millirems per year): a measure of radiation absorbed by the body.
MFL (Million Fibers per Liter): a measure of the presence of asbestos fibers that are longer than 10 micrometers.
NA: Not applicable
ND: Not detected.
NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.
pCi/L (picocuries per liter): Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).
pH: A measurement of acidity, 7.0 being neutral.
ppm (parts per million): One part substance per million parts water, or milligrams per liter.
ppb (parts per billion): One part substance per billion parts water, or micrograms per liter.
ppt (parts per trillion): One part substance per trillion parts water, or nanograms per liter.
RAA (Running Annual Average): average results for the most recent four quarters.
SMCL (Secondary Maximum Contaminant Level): recommended level for a contaminant that is not regulated and has no MCL.
TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Water Quality Statement

The staff and management of the Fort A.P. Hill - American Water Enterprises, Inc. water utility are pleased to report that the water provided to you during the past year met all the State and Federal standards set for drinking water. The 1996 amendments to the Federal Safe Drinking Water Act require that Fort A.P. Hill deliver a brief annual water quality report to all customers.

REGULATED PARAMETERS

Substance (units)	Year Sampled	MCL	MCLG	Highest Value	Range	Compliance Achieved	Typical Source
Inorganic Compounds							
Arsenic (ppb)	2017	10	0	ND	ND	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2017	2	2	0.0074	0.0058 – 0.0074	Yes	Discharge of drilling waters; Discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	2017	4	4	ND	ND	Yes	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	2017	5	5	ND	ND	Yes	Corrosion of galvanized pipes; Erosion of natural deposits; Metal refineries discharge; Waste batteries and paint runoff
Nitrate – Nitrite (Combined)	2018	10	10	ND	ND	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radiological Contaminants							
Combined Radium 226-228 (pCi/L)	2014	5	0	ND	ND	Yes	Erosion of natural deposits
Gross Alpha (pCi/L)	2014	15	0	4.8	ND – 4.8	Yes	Erosion of natural deposits
Disinfectant and Disinfectant By-Products							
Haloacetic Acids (HAA5) (ppb)	2018	60	NA	4.3	4.3	Yes	By-product of drinking water disinfection
Total Trihalomethanes (TTHMs) (ppb)	2018	80	NA	ND	ND	Yes	By-product of drinking water disinfection
Chlorine (ppm)	2018	MRDL = 4	MRDLG = 4	1.85	0.48 – 1.85	Yes	Disinfectant water additive used to control microbes

Microbiological Contaminants

Substance (units)	Year Sampled	MCL	MCLG	Tested Positive	Compliance Achieved	Typical Source
Coliform, Total (TCR)	2018	No more than 1 positive monthly sample.	0	0	Yes	Naturally present in the environment
E. Coli	2018	No more than 1 positive monthly sample.	0	0	Yes	Naturally present in the environment

Lead and Copper

Substance (units)	Year Sampled	AL	MCLG	Range	90th Percentile	Sites Above AL	Compliance Achieved	Typical Source
Lead (ppb)	2017	15	0	ND – 11.6	6	0	Yes	Corrosion of household plumbing
Copper (ppm)	2017	1.3	0	ND - 0.63	0.032	0	Yes	Corrosion of household plumbing

* The MCL for TTHM is based on the result of the Running Annual Average (RAA).

UNREGULATED CONTAMINANTS

Substance (units)	Year Sampled	Highest Value	Range	SMCL
Alkalinity, Total (ppm)	2017	113	103 - 113	300
Calcium (ppm)	2017	0.64	0.29 –0.64	200
Chloride (ppm)	2017	94.5	26.1 – 94.5	250
Conductivity (µmhos/cm)	2017	604	368 - 604	1500
Hardness, Total (as CaCO3, ppm)	2017	4.0	1.9 – 4.0	400
Iron (ppm)	2017	0.16	0.07 - 0.16	0.3
Magnesium (ppm)	2017	0.59	0.10 – 0.59	150
Manganese (ppm)	2017	ND	ND	0.05
pH (std unit)	2017	8.03	7.89 – 8.03	8.5
Sodium (ppm)	2017	108.2	87.0 – 108.2	100
Sulfate (ppm)	2017	40.3	33.3 – 40.3	250
Total Dissolved Solids (ppm)	2017	337	128 - 337	500