



This water quality report has been reviewed by the Virginia Department of Health.

Este informe contiene informacíon muy importante sobre su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

2024 Water Quality Report Joint Base Langley-Eustis PWS PWS ID: VA3700100 **Old Dominion Utility Services, Inc.** Subsidiary of American States Utility Services, Inc.





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Every day, people depend on American States Utility Services, Inc. (ASUS) for the water that enhances their quality of life. We operate and maintain water and wastewater systems on military bases across the country, dedicating ourselves to producing drinking water that meets all state and federal standards and continually striving to adopt new methods for delivering the best quality drinking water to the military installations we serve. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education, while continuing to meet the needs of all of our waterusers.

Old Dominion Utility Services, Inc. (ODUS), a wholly-owned subsidiary of ASUS, is the sole provider of your water service. Our certified operators ensure the safe delivery of all potable water, taking water samples at approved sites to ensure its quality throughout our system. With a deep commitment to customer care, ASUS works diligently to protect every drop of water. As a utility provider, we constantly analyze our systems to determine which areas might need repair, replacement, or even supplementary facilities. ASUS also puts a strong focus on water efficiency, actively providing educational outreach for customers to further encourage better resource management.

We at ASUS are proud to be able to provide our services to the military personnel, civilians, and family members who live and work at Joint Base Langley-Eustis (JBLE). We're honored to support the role your military installation plays in defending the country, both at home and abroad. We achieve this goal by always putting our fundamental ideals into practice. We pay special attention to the ultimate measure of success: our customer's peace of mind.

In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all our customers. These improvements are sometimes reflected as rate structure adjustments. With our own team's deeply-rooted military background, we have an intimate understanding of what it takes to make an installation thrive, and we take pride in delivering unparalleled care in this regard.

We are pleased to present you with this annual water quality report and thank you for allowing us to serve you and your family. Please remember that we are always available to assist you should you ever have any questions or concerns about your water. For more details, you can view our past and current Water Quality Reports at www.asusinc.com.

Sincerely, Your Management Team

Dedicated to Delivering Clean Water

Franklin Jones
Director of Operations
American States Utility
Services, Inc.



Grover "Cleve" Branton
Utility Manager
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Where does your water come from?

The drinking water being delivered to you is purchased from Newport News Waterworks. The primary source of your drinking water comes from surface water. When available, water is pumped from the Chickahominy River. A secondary source of your drinking water is a small amount of brackish (slightly salty) groundwater pumped from deep wells in the Lee Hall area. This water is piped and stored, prior to treatment, into five reservoirs owned and operated by Newport News Waterworks. Water from both sources (reservoir and groundwater) is treated separately and mixed together before distribution.

Source Water Assessment

Your water is tested before and after it is treated to ensure it meets federal and state standards. The Virginia Department of Health (VDH) updated its Source Water Assessment of the Newport News Waterworks' surface water sources in 2021. The surface water sources were rated as relatively high in susceptibility to contamination (one reason it's important for water treatment), while the deep groundwater wells were rated as low in susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment Program.

The assessment report consists of maps showing the source water assessment area, an inventory of known land use activities, potential sources of contamination, a susceptibility explanation chart, and term definitions. The report is available by contacting the Newport News Waterworks (757-926-1000) or the Hampton Roads Planning Commission (757-420-8300).

Source Water

Newport News Laterworks



Contaminates in water

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

To ensure that tap water is safe to drink, the Virginia Department of Health (VDH) and the U.S. Environmental Protection Agency (EPA) prescribe regulations limiting the amount of certain contaminants in water provided by public water systems. The 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 the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be in your water may include:

Contaminant	Sources
Microbial (Viruses, Bacteria)	Sewage treatment plants, septic systems, agricultural livestock operations, and wildlife
Inorganic (Salts, Metals)	Can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming
Pesticides & Herbicides	Agriculture, urban stormwater runoff, and residential uses
Organic Chemicals	Includes synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems
Radioactive	Can be naturally occurring or a result of oil and gas production and mining activities

Contaminates in Water



The U.S. 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 at 1-800-426-4791 or

https://www.epa.gov/aboutepa/epa-hotlines.

Health risks

Lead can cause serious health problems, especially for pregnant women and young children. Exposure to lead in drinking water can cause serious effects in all age groups. Infants and children have decreases in IQ and attention span. Lead exposure can lead to new learning and behavioral problems or exacerbate learning and behavioral problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risk of heart disease, high blood pressure, kidney or nervous system problems.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. ODUS is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time.

What can you do at home?

You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by the American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact ODUS at 757-888-0484.

Lead in Home Plumbing



Further information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

Lead Service Line Inventory

ASUS/ODUS has begun an effort to identify, inventory and replace any water system service lines composed of lead or having lead components. This effort is in response to updated legislation regarding the Lead and Copper Rule Revisions (LCRR).

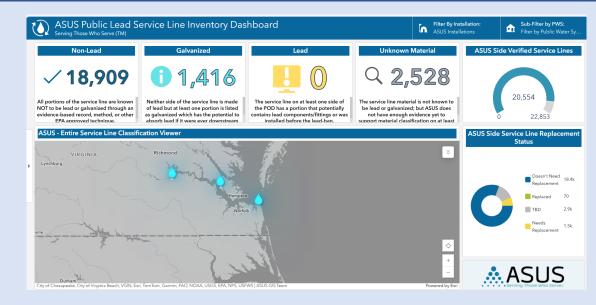
There are currently two important ASUS websites available to the public that show the efforts made at Fort Story and other ASUS installations used to detect and replace these lead components in our water system. These are updated in real time with our progress and are accessible at the following hyperlinks. Please not that each website will need to be filtered to the exact installation.

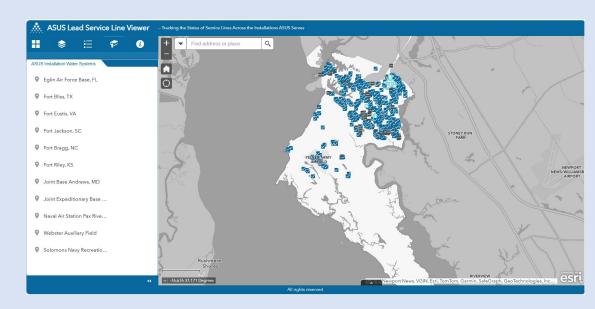
The first website is the **ASUS Public Lead Service Line Inventory Dashboard** (top right photo). This website shows the overview of the progress completed by ODUS and other installations. This website may be accessed at the following link:

https://asusinc.maps.arcgis.com/apps/dashboards/7f67012b51a74cb8b509 978871978ea3

The second is the **ASUS Lead Service Line Viewer** (bottom right photo) that shows, by installation, the exact location and information for all service lines on the installation. This website may be accessed at the following link:

https://asusinc.maps.arcgis.com/apps/webappviewer/index.html?id=7f0b7f 379b374db0b8d9adf8a93c099e





Source Water Monitoring Results for the 2024 Calendar Year

Joint Base Langley Eustis (Formerly Fort Eustis) and Newport News Waterworks constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The following tables list only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

The following tables list the drinking water contaminants that were detected during the 2024 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables is from testing done January 1 – December 31, 2024. The State requires JBLE 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. In these cases, the most recent sample data are included, along with the year in which the sample was taken.







UCMR 5 Sampling & PFAS

In December 2021, the U.S. EPA set up mandatory sampling for many water systems to monitor for PFAS (per- and polyfluoroalkyl substances) in order to establish baseline levels of these forever chemicals found in the environment. Since 2021, these chemicals have been sampled and studied nationwide to create applicable drinking water standards that will limit the maximum amount of PFAS chemicals allowed in the water supply.

These chemicals originate from commercial and industrial sources that include many materials manufactured using "non-stick", "waterproof", and "stain-resistant" labeling. On military installations, the major source of this contamination is contributed to the use of Aqueous Film Forming Foam (AFFF) associated with extinguishing fires, specifically on flight lines.

Fort Eustis PWS was notified by the EPA to begin the Unregulated Contaminant Monitoring Rule – Round 5 (UCMR 5) sampling for these substances starting in 2025. The results for this first round of sampling are listed on the next page.

Additionally, Newport News Waterworks conducted sampling in their system for UCMR 5 during 2023 – 2024 and their results are listed below. Only PFAS chemicals that were detected are recorded in their results.

Substances (with units)	MRL	Maximum Concentration	Range (Low – High)	Sources and Comments	
Perfluorobutanoic acid (PFBA) (ppt)	5.0	6.0	<5.0 – 6.0	PFAS are a group of synthetic chemicals used in a wide range of consumer	
Perfluoropentanoic acid (PFPeA) (ppt)	3.0	5.0	<3.0 – 5.0	products and industrial applications including: non-stick cookware, water-	
Perfluorohexanoic acid (PFHxA) (ppt)	3.0	4.9	<3.0 – 4.9	repellent clothing, stain resistant fabrics and carpets, cosmetics, fire fighting	
Perfluorohexanessulfonic acid (PFHxS) (ppt)	3.0	5.0	<3.0 – 5.0	foams, electroplating, and products that resist grease, water, and oil. PFAS are found in the blood of people and animals	
Perfluoroctanesulfonic acid (PFOS) (ppt)	4.0	6.1	<4.0 – 6.1	and in water, air, fish, and soil at locations across the United States and the world.	







Analyte Name	Chemical Name	MRL (μg/L)	Sample Results
Lithium	Lithium	<9	< MRL
11CI-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	< 0.005	< MRL
4:2 FTS	1H,1H, 2H, 2H-perfluorohexane sulfonic acid	< 0.003	< MRL
6:2 FTS	1H,1H, 2H, 2H-perfluorooctane sulfonic acid	< 0.005	< MRL
8:2 FTS	1H,1H, 2H, 2H-perfluorodecane sulfonic acid	< 0.005	< MRL
9CI-PF3ONS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	< 0.002	< MRL
ADONA	4,8-dioxa-3H-perfluorononanoic acid	< 0.003	< MRL
HFPO-DA	hexafluoropropylene oxide dimer acid	< 0.005	< MRL
NFDHA	nonafluoro-3,6-dioxaheptanoic acid	< 0.02	< MRL
PFBA	perfluorobutanoic acid	< 0.005	< MRL
PFBS	perfluorobutanesulfonic acid	< 0.003	< MRL
PFDA	perfluorodecanoic acid	< 0.003	< MRL
PFDoA	perfluorododecanoic acid	< 0.003	< MRL
PFEESA	perfluoro(2-ethoxyethane) sulfonic acid	< 0.003	< MRL
PFHpA	perfluoroheptanoic acid	< 0.003	< MRL
PFHpS	perfluoroheptanesulfonic acid	< 0.003	< MRL
PFHxA	perfluorohexanoic acid	< 0.003	0.0037
PFHxS	perfluorohexanesulfonic acid	< 0.003	0.0038
PFMBA	perfluoro-4-methoxybutanoic acid	< 0.003	< MRL
PFMPA	perfluoro-3-methoxypropanoic acid	< 0.004	< MRL
PFNA	perfluorononanoic acid	< 0.004	< MRL
PFOA	perfluorooctanoic acid	< 0.004	< MRL
PFPeA	perfluoropentanoic acid	< 0.003	0.0039
PFPeS	perfluoropentanesulfonic acid	< 0.004	< MRL
PFUnA	perfluoroundecanoic acid	< 0.002	< MRL
PFOS	perfluorooctanesulfonic acid	< 0.004	< MRL
NEtFOSAA	N-ethyl perfluorooctanesulfonamidoacetic acid	< 0.005	< MRL
NMeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	< 0.006	< MRL
PFTA	perfluorotetradecanoic acid	< 0.008	< MRL
PFTrDA	perfluorotridecanoic acid	< 0.007	< MRL

UCMR 5/PFAS Sampling Results for First Quarter 2025

Note: <u>Unregulated contaminants</u> are those that do not yet have a drinking water standard set by the EPA. The purpose of monitoring for these contaminants is to help the EPA determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future. UCMR5 results in this table have no direct implications for PWS MCL compliance.

Sampled by Old Dominion Utility Services, Inc.

These and past UCMR results for the PWS can be found through the following publicly available EPA website:

https://www.epa.gov/dwucmr/occurre nce-data-unregulated-contaminantmonitoring-rule

Regulated Substances – Treatment water quality monitored by Newport News Waterworks

Substance (with units)	MCLG	MCL	Highest Reportable Result	Range Low-High	Meets EPA Standard	Typical Source
Copper (ppm)	0	AL = 1.3	0.101^{1}	0.007 - 0.311	Yes	Corrosion of household plumbing
Lead (ppb)	0	AL = 15	<1.0 ¹	<1 - 9.86	Yes	Corrosion of household plumbing
Fluoride (ppm)	4	4	0.80	0.75 - 0.80	Yes	Added to promote strong teeth
Barium (ppm)	2	2	0.022	0.022	Yes	Erosion of natural deposits
Nitrate (ppm)	10	10	0.045	<0.020 - 0.045	Yes	Erosion of natural deposits
Nitrite (ppm)	1	1	0.002	<0.001 - 0.002	Yes	Erosion of natural deposits
Total Trihalomethanes (TTHM) (ppb)	0	80	16²	5 - 23	Yes	By-product of chlorination
Haloacetic Acids (HAA5) (ppb)	0	60	20 ²	2 - 24	Yes	By-product of chlorination
Total Organic Carbon (TOC) Removal (N/A)	None	TT	1.18 ³	0.98 - 1.80	Yes	Naturally present in the environment
Turbidity (NTU)	N/A	TT	0.1714	0.015 - 0.171	Yes	Soil runoff
Total Chlorine (Chloramines) (ppm)	4	MRDL = 4.0	3.05	<0.02 - 6.1 ⁵	Yes	Water additive (disinfectant) used to control microbes
Combined Radium (-226 & -228) (pCi/L)	0	5	0.6	0.2 - 0.6	Yes	Erosion of natural deposits
Beta Emitters (pCi/L)	0	4	1.8	1.2 - 1.8	Yes	Decay of natural & man-made deposits

Regulated Substances 2024 Sampling Results

Footnotes: Except for radiological testing and Lead and Copper, which were completed in 2022, the results reported in the table above are for samples taken in 2023-2024. Samples taken in 2023 are part of required four-quarter or annual running averages.

(1) At least 90% of the samples were at or below this level. None of the individual samples exceeded the Action Level. Because our lead and copper levels are so low, we only have to test every three years. Lead and copper testing was completed in 2022. (2) The highest detected levels of THM and HAA are based on a specific location's four-quarter running average. The range numbers are the results from individual samples. The data in "Highest Result" column include samples from 2023. The range is for samples taken in 2024. (3) Compliance is based on a running four-quarter average. The range is the individual monthly ratio from both water treatment plants. TOC has no adverse health effects, but can be a critical component in the formation of disinfection by-products. The data in the "Highest Result" column includes samples from 2023. The range is for samples taken in 2024. (4) Turbidity is a measure of water cloudiness. It is a good indicator of the effectiveness of our filtration system. 100% of samples were within the turbidity limit. (5) For Chloramines, a system-wide annual running average is used. The range numbers are the results of individual samples. The data in the "Highest Result" column includes samples from 2023. The range is for samples taken in 2024.

Regulated Substances – Distribution system water quality monitored by Old Dominion Utility Services, Inc.

Substance (with units)	MCLG	MCL	Highest Reportable Result	Range Low-High	Meets EPA Standard	Typical Source
Total Chlorine (mg/L)	4	MRDL = 4.0	2.18 ¹	$0.20 - 4.5^{1}$	Yes	Water additive used to control microbes
HAA [Haloacetic Acids] - Stage 2 (ppb)	N/A	60	20	ND - 20	Yes	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] - Stage 2 (ppb)	N/A	80	15.8	ND – 15.8	Yes	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community²

Substance (with units)	Year	AL	MCLG	Amount Detected (90 th percentile)	Sites Above AL/Total Sites	Meets EPA Standard	Typical Source
Copper (mg/L)	2024	1.3	1.3	0.318	0/30	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (mg/L)	2024	0.015	0.015	0.00184	1/30	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

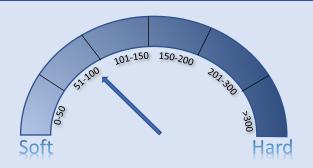
Regulated Substances 2024 Sampling Results

Footnote: (1) The running annual average for chlorine in drinking water on Fort Eustis is 2.18 mg/L. This value is in compliance with the Maximum Residual Disinfectant Level (MRDL) of 4.0 mg/L.

(2) Corrosion of pipes, plumbing fittings and fixtures may cause metals, including lead and copper, to enter drinking water. To assess corrosion of lead and copper, ODUS conducts tap sampling for lead and copper at selected sites every three years, as required by VDH. The most recent set of lead and copper tap sampling is available for review in the table. To view the full reports for the lead and copper tap sampling data, contact ODUS at 757-888-0484.

We are pleased to report to you there were no detections of total or fecal coliforms in the monthly samples collected during calendar year 2024.

Additional Information



Water Hardness Scale (scale in ppm as CaCO3)

The U.S. EPA has not set a standard for hardness. Water treated by Newport News Waterworks is considered moderately hard (4-6 grains, which is equal to 61-120 ppm CaCO3) per American Society of Engineers.

The average level of hardness found in water supplied to Fort Eustis in 2024 was 63 ppm and the range was 52 – 74 ppm.



Fluoride

Fluoride is added to water to help prevent tooth decay. Newport News Waterworks adheres to drinking water regulations set by U.S. EPA and guidance provided by the Virginia Department of Health (VDH). VDH has adopted the recommendation of 0.7 mg/L, set by U.S. Department of Health and Human Services, as the optimum level of fluoride concentration in drinking water. This is the target Waterworks strives to achieve. Information about fluoridation, oral health, and current issues is available at www.cdc.gov/fluoridation.



Sodium

There is presently no established standard for sodium in drinking water. Water containing more than 20 mg/L should not be used as drinking water for those persons whose physician has placed them on severely restricted sodium diets.

The average level of sodium found in water supplied to Fort Eustis in 2024 was 11.0 mg/L and the range was 10.7 - 11.4 mg/L. Should you have any health concerns, please contact your health care provider.

The following are common terms and abbreviations found in water sampling and analyses documents and may appear throughout this report:

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount detected values for TTHMs and HAAs are reported as LRAAs.

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 a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

MRL: (Minimum Reporting Level): The smallest measured concentration that can be reliably quantified by the analytical method. <MRL is notated when the analyte is either not detected or the concentration is less than the MRL.

N/A: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity. The US EPA considers 50 pCi/L to be the level of concern for beta particles.

ppm (parts per million): One part substance per million parts water (or milligrams per liter - mg/L).

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter - μ g/L).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter – ng/L).

PWS: Public Water System – refers to the system of wells or water sources, storage tanks, and system feeder lines that supply water to your home.

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

Definitions for Common Terms





Questions?

If you have questions about drinking water quality:

Call the U.S. Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Or call the Virginia Department of Health Office of Drinking Water at (757) 683-2000, www.vdh.virginia.gov/ODW.

If you have questions about your local drinking water quality:

At Newport News Waterworks, contact Customer Service at (757) 926-1000, Monday through Friday, 8 a.m. to 5 p.m.

At Joint Base Langley-Eustis (formerly Fort Eustis), call Cleve Branton at (757) 888-0485.

Decisions about your drinking water are made at Newport News City Council meetings. Meetings are held on the second and fourth Tuesday of each month at 7:00 p.m. and the public is invited to attend.

Consult the City Council web site at: www.nngov.com.

These meetings are broadcast live on Newport News City Channel (in Newport News - Cox Channel 48 and Verizon FIOS Channel 19) www.nnva.gov/nntv.

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Joint Base Langley-Eustis PWS
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Old Dominion Utility Services, Inc.
Subsidiary of American States Utility Services, Inc.

