

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.

If you have questions about your local drinking water quality:

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

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

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

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

These meetings are broadcast live on Newport News City Channel (In Newport News – Cox channel 48 and Verizon FIOS channel 19) and can be viewed live or on-demand by all customers in our service area on the web at nnva.gov/nnvtv. Consult the City Council web site at: www.nngov.com.

Serving Those Who Serve[®]

2018 Water Quality Report
Joint Base Langley-Eustis
PWS ID#: 3700100
Old Dominion Utility Services, Inc.
Subsidiary of American States Utility Services, Inc



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

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



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Dedicated to Delivering Clean Water

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 water users.

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

Susan Miller
Director of Operations, Mid-Atlantic Region
American States Utility Services, Inc.

Grover "Cleve" Branton
Assistant Utility Manager, Old Dominion Utility Services, Inc.
American States Utility Services, Inc.



2018 Results for Detected Contaminants (continued)

Unregulated Substances Monitored at Treatment Plant

Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High	Typical Source
Bromodichloromethane (ppb)	2018	2.3	1.7 - 2.9	By-product of chlorination
Chloroform (ppb)	2018	4.3	2.6 - 6.0	By-product of chlorination

Unregulated Substances in Distribution System

Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low-High	Typical Source
Chlorate (ppb) (5)	2014	266	240 - 290	Naturally occurring; Disinfection by-product; Agricultural defoliant
Chromium (ppb) (5)	2014	0.21	ND - 0.47	Naturally occurring; Chromium is used to make stainless steel
Chromium-6 (ppb) (5)	2014	0.06	0.05 - 0.09	Naturally occurring; Chromium is used to make stainless steel
Strontium (ppb) (5)	2014	207	170 - 231	Naturally occurring; Used in some televisions
Vanadium (ppb) (5)	2014	0.80	0.6 - 0.9	Naturally occurring metal used in automotive industry

(5) UCMR3 (Unregulated Contaminant Monitoring Rule Part 3). Unregulated contaminant monitoring helps the EPA determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future. Tested in 2014.

We are pleased to report to you there were no detections of total or fecal coliforms in the monthly samples collected during calendar year 2018.



2018 Results for Detected Contaminants

Regulated Substances - Treatment Water Quality Monitored by Newport News Waterworks

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Highest Amount Detected	Range Low-High	Violation	Typical Source
Barium (ppm)	2018	2	2	0.023	0.021 - 0.023	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters (pCi/L) (1)	2016	50	0	2.5	1.4 - 2.5	No	Decay of natural and man-made deposits
Fluoride (ppm)	2018	4	4	1.02	0.66 - 1.02	No	Erosion of natural deposits; Water additive which promotes stronger teeth
Nitrate (ppm)	2018	10	10	0.105	0.057 - 0.105	No	Runoff from fertilizer use; Erosion of natural deposits
Nitrite (ppm)	2018	1	1	0.002	<0.001 - 0.002	No	Runoff from fertilizer use; Erosion of natural deposits
Radium-228 (pCi/L)	2016	5	0	0.6	<0.6 - 0.6	No	Erosion of natural deposits
Total Organic Carbon (% removal) (2)	2018	TT	N/A	1.02	0.98 - 1.71	No	Naturally present in the environment
Turbidity (NTU) (3)	2018	TT	N/A	0.32	0.02 - 0.32	No	Soil runoff

Regulated Substances - Distribution System Water Quality Monitored by Old Dominion Utility Services, Inc.

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG	Highest 4-Quarterly Average	Range Low-High	Violation	Typical Source
Chloramines (ppm)	2018	4	4	2.28	0.22 - 4.0	No	Water additive used to control microbes
Haloacetic Acids [HAA] - Stage 2 (ppb)	2018	60	N/A	3	0 - 5	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] - Stage 2 (ppb)	2018	80	N/A	11	4.9 - 18.7	No	By-product of drinking water disinfection

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

Substances (Unit of Measure)	Year Sampled	AL	MCLG	Amount Detected (90th %tile)	Sites Above AL/Total Sites	Violation	Typical Source
Copper (ppm)	2018	1.3	1.3	0.150	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2018	15	0	ND	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

Non-regulated Microbials in Source Water

Substances (Unit of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range Low-High	Violation	Typical Source
Cryptosporidium (4)	2018	TT	N/A	0.041	ND - 0.041	No	Human or animal fecal waste

(1) The MCL for beta particles is 4 mrem/year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

(2) Total Organic Carbon removal 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 Amount Detected" column includes samples from 2017. The range is for samples taken in 2018.

(3) Turbidity is a measure of water cloudiness. It is monitored because it is a good indicator of water quality and the effectiveness of the filtration system. 100% of samples were within the turbidity limit.

(4) Found in source water only, not in treated water. Unit of measure is #/Liter.

Important Information about Your Water

Your Drinking Water Source

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.

This water is piped and stored, prior to treatment, in five reservoirs owned and operated by Newport News Waterworks. A secondary source of your drinking water is brackish (slightly salty) groundwater pumped from deep wells in the Lee Hall area. Water from both sources (reservoir and groundwater) is separately treated and mixed together before distribution.

Chloramine Disinfection

In Fall 2000, Newport News and other cities in Hampton Roads changed from a chlorine disinfection process to chloramines.

Chloramine disinfection is created when chlorine is combined with a small amount of ammonia. The purpose of this change was to lower disinfection byproducts in response to new and more stringent state and federal regulations.

Chloraminated water is safe for drinking, cooking, bathing, and all other everyday uses. There are, however, two groups of people who should take special precautions in using chloraminated water: kidney dialysis patients and fish owners.

Like chlorine, chloramines must be removed from water used in kidney dialysis machines and aquariums.

What the EPA Wants You to Know

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.

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 (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

Lead in Home Plumbing

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. We are 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.

The Health Department recommends that you use only cold water for drinking, cooking, and especially for making baby formula. 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 www.epa.gov/safewater/lead.

Important Information about Your Water

Substances that Could Be in Your Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting 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 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.

Substances 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 result from urban stormwater 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 stormwater runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring or a result of oil and gas production and mining activities.

For more information about contaminants and potential health effects can be obtained by calling EPA's Safe Drinking Water Hotline at (800) 426-4791.

About Cryptosporidium

Cryptosporidium is a parasitic microbe found in surface waters throughout the U.S. Our monitoring indicates the presence of these organisms at very low levels in our source water but not in our treated water. Current test methods approved by the EPA 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.

Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water. 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at 800-426-4791.

Source Water Assessment

Your water is tested before and after it is treated to ensure it meets federal and state standards. The Hampton Roads Planning Commission has completed a Source Water Assessment of the Newport News Waterworks' water sources in 2017.

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 of concern, 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).

Important Information about Your Water

UCMR 3 Sampling

In 2014, we participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water.

UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

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 maximum detected level was 18 mg/L, the average was 13 mg/L and the range was 10 – 18 mg/L.

2018 Results for Detected Contaminants

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 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 2018 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, 2018. 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.

The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

DEFINITIONS

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).

pCi/L (picocuries per liter): A measure of radioactivity.

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.

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

NA: Not applicable

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

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

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.