NSA HAMPTON ROADS-PORTSMOUTH ANNEX
PORTSMOUTH, VIRGINIA
2024 CONSUMER CONFIDENCE REPORT

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For additional information:

City of Portsmouth, Water Quality Division (757) 539-2201 x232

Virginia Department of Health 757-683-2000 http://www.vdh.virginia.gov/drinking-water/

USEPA Safe Drinking Water 800-426-4791 http://www.epa.gov/safewater/

NSA Hampton Roads Public Works Department Environmental 757-836-1862

The source of NSA HR-Portsmouth Annex drinking water includes eight reservoirs, two rivers, and five deep wells.

Naval Support Activity Hampton Roads (NSA HR)-Portsmouth Annex (PA) is committed to providing you drinking water that is safe and reliable. NSA HR-PA believes that providing you with accurate information about your water is the best way to assure that it is safe. Of note, there were no drinking water violations to report for 2024.

Each year, the Consumer Confidence Report (CCR) is required to be distributed by July 1st of the current year. This CCR is a snapshot of the quality of your drinking water in 2024. The purpose of this annual report is to advise consumers of where their water comes from, provide water quality data, advance greater understanding of drinking water, and heighten awareness to conserve water resources.

NSA HR-PORTSMOUTH ANNEX SOURCE WATER

NSA HR-Portsmouth Annex purchases finished water from the City of Portsmouth. Portsmouth's water supply comes from a system of four surface lakes (Kilby, Meade, Cahoon, and Speight's Run) and five deep wells in the Middle Potomac Aquifer. From these lakes and wells, the water is pumped through pipes to a water treatment facility which has the capacity to treat 33 million gallons of water each day and serves over 120,000 customers in Portsmouth, Chesapeake and Suffolk. Water treatment chemicals are added to the water causing small solid particles to clump together and sink to the bottom of a settling basin. The water is then filtered to remove bacteria, algae, and other impurities. Finally, the water is disinfected with chloramines to kill any remaining bacteria.

ABOUT DRINKING WATER

The sources of drinking water (both tap 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 (referred to as contaminants) in source water may come from septic systems, discharges from domestic or industrial wastewater treatment facilities, agricultural and farming activities, urban storm water runoff, residential uses, and many other types of activities. Water from surface sources is treated to make it drinkable while groundwater may or may not have any treatment.

The Source Water Assessment is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. According to the Source Water Assessment, our water system had a susceptibility rating of "medium" where the drinking water is potentially most susceptible to agriculture, urban, and forestry runoff. However, we have not detected any contaminants from these sources in our drinking water. If you would like to review the Assessment, please contact the City of Portsmouth's watershed office during office hours at 757-539-2201, ext 222.

Contaminants that may be present in source water include:
Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
Inorganic contaminants, such as salts and metals, which may be naturally occurring or 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 come from gas stations, urban storm water runoff, and septic systems.
Radioactive contaminants, which may be naturally occurring, or the result of oil and gas production and mining activities.

In addition to these contaminants, all lakes and streams contain algae, which are microscopic plants that can cause taste and odor problems in drinking water.

ABOUT DRINKING WATER (continued)

All 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. More information about contaminants and potential health effects can be obtained at https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) establishes limits for contaminants in bottled water, which must provide the same protection for public health.

Who needs to take special precautions?

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 systems 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 (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available at https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations.

Kidney dialysis patients should consult with their health care providers or dialysis centers in order to take special precautions when using chloraminated water.

Fish owners should be sure chloramines are removed from the water before it is used in aquariums or ponds. Many pet stores sell water conditioners for chloraminated water.

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior 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 risks of heart disease, high blood pressure, kidney or nervous system problems.

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. NSA HR-Portsmouth Annex 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. 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 an 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 NSA HR Environmental at 757-836-1862. 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.

In accordance with the Lead and Copper Rule Revision (LCRR), a Lead Service Line Inventory (LSLI) for NSA HR-Portsmouth Annex was prepared, revised, and approved for 2024. For access to the LSLI, contact NSA HR Environmental at 757-836-1862.

DEFINITIONS AND ABBREVIATIONS

Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The table on the following pages shows the results of monitoring for 2024. In the tables and elsewhere in this report you may find many terms and abbreviations which you are not familiar. The following definitions are provided to help you better understand these terms:

Action Level (AL) - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow. For lead and copper monitoring, compliance is based on the 90th percentile value.
Level 1 Assessment – A Level 1 assessment is a study of the waterworks to identify potential problems and determine, if possible, why total coliform bacteria have been found in our waterworks.
Level 2 Assessment – A level 2 assessment is a very detailed study of the waterworks to identify potential problems and determine, if possible, why an *E. Coli* PMCL violation has occurred and why total coliform bacteria have been found in our waterworks on multiple occasions.
Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water based on running annual average. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. For chlorine and chloramines, a waterworks is in compliance with the MRDL when the running annual average of monthly averages of samples taken in the distribution system, computed quarterly, is less than or equal to the MRDL.
Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
Minimum Reporting Level (MRL) – Smallest measured concentration of a substance that can be reliably measured by using a given analytical method.
NA – Not applicable
Nephelometric Turbidity Unit (NTU) – A measure of the clarity, or cloudiness, of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.
Non-detection (ND) – Laboratory analysis indicates that the contaminant is not present.
Picocuries per liter (pCi/L) - A measure of the radioactivity in water.
Parts per million (ppm) or Milligrams per liter (mg/L) – A measurement of the amount of contaminant per unit of water. A part per million is one cent in $10,000 or one minute in two years.
Parts per billion (ppb) or Micrograms per liter (ug/L) – A measurement of the amount of contaminant per unit of water. A part per billion is like one cent in $10,000,000 or one minute in 2,000 years.
Secondary Maximum Contaminant Level (SMCL) – Non-enforceable standard that is established for aesthetic considerations
Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water.

WATER QUALITY DATA

The following tables list only those contaminants that were present in your drinking water at levels detectable by laboratory equipment. Unless otherwise noted, the data presented in these tables is from testing done in 2024. We are required to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. The EPA sets the Maximum Contaminant Levels (MCLs) and the Maximum Contaminant Level Goals (MCLGs) as listed in the tables. The Regulated Substances Table and the Unregulated Substances Table are provided for your information and as required by the Consumer Confidence Rule.

Table 1. 2024 WATER QUALITY TABLE – City of Portsmouth (Water Treatment Plant Samples)

Regulated Substances	Unit	MCLG	MCL	Amount Detected	Range	Meets EPA Standards	Possible Source of Contamination
Barium	ppm	2	2	0.027	NA	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chloramines	ppm	4	4	3.72	1.40-4.20	Yes	Water additive used to control microbes
Fluoride	ppm	4	4	0.88	0.62-1.13	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Total Organic Carbon	ppm	NA	TT	2.1	1.50-2.70	Yes	Naturally present in the environment
Chromium	ppb	100	100	1.4	NA	Yes	Discharge from steel and pulp mills; Erosion of natural deposits
Silver	ppb	NA	100	1.2	NA	Yes	Industrial discharges
Radiological Data (2021 Data)	**Unit**	**MCLG**	**MCL**	**Amount Detected**	**Range**	**Meets EPA Standards**	**Notes and Possible Source of Contamination**
Alpha Emitters[1]	pCi/L	0	15	0.36 +/- 0.65	NA	Yes	Erosion of natural deposits
Beta/Photon Emitters[2]	pCi/L	2	50	1.4 +/- 1.3	NA	Yes	Decay of natural and man-made deposits
Combined Radium[3]	pCi/L	0	5	1.67 +/- 0.73	NA	Yes	Erosion of natural deposits based on local geological bed rock.
Turbidity	**Unit**	**MCLG**	**TT[4]**	**Amount Detected**	**Range**	**Meets EPA Standards**	**Possible Source of Contamination**
Turbidity	NTU	NA	TT	0.06	0.03-0.10	Yes	Soil Runoff
Turbidity (Lowest monthly percent of samples meeting limit)	NTU	NA	TT	100	NA	Yes	Urban and soil runoff, sediments from erosion

1 Footnote for City of Portsmouth: Gross Alpha MRL=3.0 results fell in range of 1.5-/+ 1.2 pCi/L with a minimum detectable activity(MDA95) of 1.1 pCi/L. Meaning the concentration can be counted with a precision of plus or minus 100% at the 95% confidence level.
2 Footnote for City of Portsmouth: Gross Beta MRL=4.0 results fell in range of 0.69 +/- 1.83 with a minimum detectable activity(MDA95) of 1.9 pCi/L. Meaning the concentration can be counted with a precision of plus or minus 100% at the 95% confidence level.
3 Footnote for City of Portsmouth: Combined Radium MRL=0.56 results fell in range of 0.57 +/- 0.56 with a minimum detectable activity(MDA95) of 0.45 pCi/L. Meaning the concentration can be counted with a precision of plus or minus 100% at the 95% confidence level. Radium-226 MRL =1.0 with a MDA =0.45pCi/L with range of 0.47 +/-0.41pCi/L, Radium-228 MRL =1.0 with a MDA=0.56 pCi/L with range of 1.2+/- 0.6. MRL is the USEPA Minimum Reporting Level, used to provide the smallest measure concentration of contaminant that may be reliably reported by the lab using a given analytical method.
4 Treatment Technique is a drinking water requirement established in lieu of an MCL, typically used when setting an MCL would be too difficult or when compliance with an MCL would be too costly.

Secondary and Unregulated Monitored Substances	Unit	SMCL	Amount Detected	Range	Typical Source
Alkalinity	ppm	NA	89	64-114	Naturally occurring
Chloride	ppm	250	17	NA	Runoff/leaching from natural deposits
Sulfate	ppm	250	61	44-85	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (TDS)	ppm	500	210	210-268	Runoff/leaching from natural deposits
pH (acidity)	pH units	6.5-8.5	7.55	6.20-8.00	Naturally occurring
Sodium[4]	ppm	NA	60	50-78	Natural in environment; also from use of chemicals at water treatment plant

[4] For physician-prescribed “no salt diets” a limit of 20 ppm is suggested.

Other Regulated Substances	Unit	Amount Detected	Range	Typical Source
Calcium Hardness	ppm	20	14-28	Naturally present in sedimentary rock
Conductivity	umhos	360	314-400	Naturally Occurring
Ortho as PO4	ppm	0.31	0.23-1.50	Naturally occurring in rocks and other minerals
Orthophosphate	ppm	0.1		Naturally occurring in rocks and other materials

*The substances listed above are not regulated by the EPA; however, this information is provided as a service to our customers.

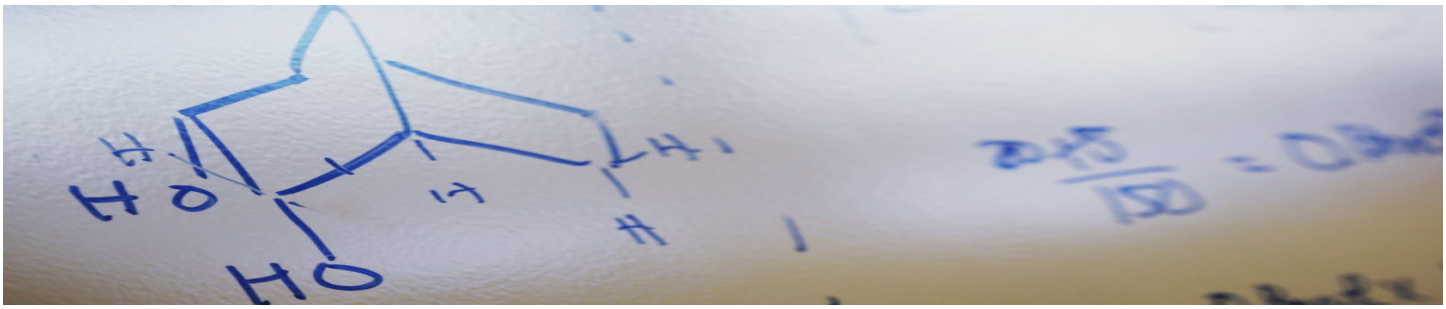
Table 2. 2024 WATER QUALITY TABLE- NSA HR-Portsmouth Annex (Distribution System Samples)

Lead and Copper Monitoring*	Unit	MCLG	AL	Samples above AL	Amount Detected (90th Percentile)	Range	Meets EPA Standards	Possible Source of Contamination
Lead (2023)	ppb	0	15	0	1	ND-13	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (2023)	ppm	1.3	1.3	0	0.404	0.046 – 0.843	Yes	Corrosion of galvanized pipes; Erosion of natural deposits

*The last Lead and Copper Monitoring event was conducted in 2023. NSA HR PA is on a triennial monitoring schedule for Lead and Copper, with a frequency of sampling once every three years. The next sampling event will be in 2026.

Residual Disinfectants & Disinfection By Products	Unit	MCLG	MCL	Highest Level	Range	Meets EPA Standards	Possible Source of Contamination
Haloacetic Acids (HAA5)	ppb	NA	60	26.3[1]	0-33	Yes	Drinking water disinfectant by-product
Trihalomethanes (TTHM)	ppb	NA	80	42.1[1]	23.1-50.9	Yes	Drinking water disinfectant by-product
Total Chlorine Residual	ppm	4[2]	4[3]	1.43[4]	0.1-2.1	Yes	Drinking water disinfectant

[1]The highest levels found for TTHM and HAA5 were the highest running annual averages found at each of the sample sites for each of the four quarters in 2024. The range is the highest and the lowest values found in the individual samples. [2]MRDLG; [3]MRDL, [4]This number is the highest running annual average of quarterly compliance samples for the 2024 calendar year; for Total Chlorine Residual, the highest running annual average was determined by calculating quarterly values which were based on monthly compliance samples.



PFAS

What are per- and polyfluoroalkyl substances and where do they come from?

Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of man-made chemicals. PFAS have been used in a variety of industries and consumer products around the globe, including in the U.S., since the 1940s. PFAS are found in many consumer products, as well as in industrial products, like certain firefighting agents called aqueous film forming foam (AFFF). PFAS is also found in essential use applications such as in microelectronics, batteries, and medical equipment. PFAS chemicals are persistent in the environment, and some are persistent in the human body – meaning they do not break down and they can accumulate over time.

Is there a regulation for PFAS in drinking water?

On April 26, 2024, the United States Environmental Protection Agency (EPA) published a National Primary Drinking Water Regulation (NPDWR) final rule on drinking water standards for six PFAS under the Safe Drinking Water Act (SDWA). The rule establishes the following maximum contaminant levels (MCLs):

- perfluorooctane sulfonic acid (PFOS) = 4 ppt
- perfluorooctanoic acid (PFOA) = 4 ppt
- hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX) = 10 ppt
- perfluorononanoic acid (PFNA) = 10 ppt

- perfluorohexane sulfonic acid (PFHxS) = 10 ppt
- HI MCL for PFHxS, PFNA, perfluorobutane sulfonic acid (PFBS), and GenX = 1 (unitless).

Under the NPDWR, regulated public water systems (PWS) are required to complete initial monitoring by April 26, 2027. Beginning April 26, 2027, regulated PWSs will conduct ongoing compliance monitoring in accordance with the frequency dictated by the rule and as determined by the initial compliance monitoring results. Regulated PWSs must demonstrate compliance with the Maximum Contaminant Levels (MCLs) by April 26, 2029.

In order to provide safe drinking water to all Department of Defense (DoD) personnel, OSD policy extends this requirement to all DoD systems which provide drinking water for human consumption, regardless of size of the drinking water system. In addition to the six regulated compounds, DoD-owned systems are required by DoD policy to monitor for all 25 compounds detected when using EPA Method 533.

Protecting the health of our personnel, their families, and the communities in which we serve is a priority for the Department. DoD is committed to complying with requirements of the NPDWR and the continued provision of safe drinking water to those that work and live on DoD installations.

Has NSA HR-Portsmouth Annex tested its water for PFAS?
Yes, In June 2019 the City of Portsmouth samples were collected from Deep Wells 1 and 2. In addition, in 2023 the City of Portsmouth tested for the six regulated PFAS listed in the final rule. We are pleased to report that drinking water testing results for all the PFAS covered by the sampling method, including the six regulated PFAS, showed PFAS were not detected in your drinking water system.

What is next?
NSA HR-Portsmouth Annex will monitor for PFAS under the UCMR5 Rule in 2025 in accordance with the EPA regulation and DoD policy. Once monitoring information is available, we will report these results in the 2025 CCR.

VIOLATIONS AND EXCEEDANCES

There were no drinking water violations to report for 2024 for NSA HR-Portsmouth Annex.

QUESTIONS

Please contact PWD NSA Hampton Roads Environmental staff at 757-836-1862 if you have any questions regarding this report. To access this report electronically, please visit the Commander, Navy Region Mid-Atlantic website:
https://cnrma.cnic.navy.mil/Operations-and-Management/Environmental-Support/Drinking-Water-Quality-Information/