



DEPARTMENT OF THE NAVY  
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IN REPLY REFER TO:  
5090  
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22 Jun 20

From: Commanding Officer, Naval Support Activity Washington  
To: Washington Navy Yard Tenant Commands and Residents

Subj: 2019 ANNUAL DRINKING WATER QUALITY REPORT, WASHINGTON NAVY YARD,  
PUBLIC WATER SYSTEM #DC0000003

Encl: (1) 2019 Annual Drinking Water Quality Report for the Washington Navy Yard

1. In accordance with federal drinking water regulations, Naval Support Activity (NSA) Washington is pleased to provide Washington Navy Yard (WNY) Tenant Commands and Residents with the 2019 Annual Drinking Water Quality Report.

2. The water at WNY met all federal Safe Drinking Water Act standards in 2019 and continues to meet those standards. This routine report is provided to ensure that you have accurate information regarding the quality of WNY drinking water. Please note that this is not being sent in response to a health threat, but because of an annual regulatory requirement.

3. WNY's drinking water originates from the Potomac River and is treated by the U.S. Army Corps of Engineers, Washington Aqueduct (WA), which uses chloramines as a disinfectant. DC Water purchases drinking water from the WA and distributes it to residences and businesses in the District, to include WNY.

4. NSA Washington regularly monitors the WNY drinking water distribution system for specific contaminants. The results of routine monitoring are an indicator of whether or not WNY's drinking water met Safe Drinking Water Act standards.

5. As required, enclosure (1) contains drinking water monitoring results conducted at WNY in Calendar Year (CY) 2019. This enclosure also provides important information about the following topics:

a. Drinking Water Quality Monitoring Results for WNY conducted in CY 2019 and Environmental Protection Agency (EPA) regulatory limits, if any, for each parameter;

b. Important health effects information;

c. Definitions of key terms, such as maximum contaminant level;

d. Contaminants reasonably expected to be found in drinking water;

e. Sources of drinking water and contaminants that may be present in source waters;

f. EPA and Food and Drug Administration regulations;

g. Non-English speaking population information; and

h. EPA Safe Drinking Water Hotline telephone number.

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6. The 2019 Annual Drinking Water Quality Report includes one notice of "failure to sample" issued by EPA Region III to WNY (one regulatory sample was taken in an unapproved location and three unregulated samples were missed). Although the finding did not represent a potential adverse health effect, WNY is required by federal regulation to notify all drinking water customers at the installation of such failure.

7. If you have any questions with regard to the quality of the Washington Navy Yard's drinking water, contact PWD Washington's Drinking Water Program Manager, William Cruz-Montes at (202) 685-8007 or by email at [William.Cruz2@navy.mil](mailto:William.Cruz2@navy.mil).



G. A. DICKS

2019

Water Quality Report



**Washington Navy Yard  
Public Water System  
ID DC0000003**





# What is a Consumer Confidence Report?

A Consumer Confidence Report (CCR), also known as a safe drinking water or water quality report, is an annual report summarizing the drinking water quality for a community public water system. Each year, the Washington Navy Yard must prepare and distribute a CCR to its tenants and send a copy of the CCR to the US Environmental Protection Agency, Region 3.

The CCR is a great opportunity for Public Work Department (PWD) Washington to describe to our water consumers what is required to provide WNY with drinking water. Information such as where our water comes from, water sample results, how we handled any problems that might have occurred, and future improvements or requirements associated with operating the system, are included within the CCR.

## Información en Español



Este reporte contiene información importante sobre el agua potable que usted consume. Para obtener una traducción del reporte, por favor comuníquese con la Oficina de Asuntos Públicos al (202) 433-2669.





# Sources of Drinking Water

Drinking water for the District of Columbia comes from the Potomac River, a “surface water” supply. U.S. Army Corps of Engineers, Washington Aqueduct filters and disinfects the water to meet safe drinking water standards. After treatment, the District of Columbia Water and Sewer Authority (DC Water) purchases the water from Washington Aqueduct before selling it to Public Work Department (PWD) Washington who in turn distributes this drinking water to residential and non-residential buildings at the Washington Navy Yard. The Washington Aqueduct treatment process includes sedimentation, filtration, fluoridation, pH adjustment, primary disinfection using free chlorine, secondary disinfection with chloramines through the addition of ammonia, and corrosion control with orthophosphate.

DC Water conducts water quality monitoring throughout the city, ensuring that the water delivered throughout the District meets Federal drinking water quality standards. For more information on DC Water, assessment techniques and reports, susceptibility to potential sources of contamination, as well as a copy of the 2019 Consumer Confidence Report from DC Water, please visit their website at <https://www.dewater.com/waterquality>. For more information on the drinking water treatment process, visit the Aqueduct’s website at: <https://www.nab.usace.army.mil/Missions/Washington-Aqueduct/>

The sources of drinking water (both tap water and bottled water) can 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.

EPA Region III, as the drinking water primacy agency for the District of Columbia, funded the update and completion of the Source Water Assessment of the Potomac River watershed in early 2020. Horsley Witten was contracted to consult with public water utilities and state agencies to create this update. This “report” is in the form of an innovative web based storyboard containing interactive links and a visual representation of the updated information. The intention was to provide the resource managers, scientists, and interested citizens with a more interactive, user friendly way of assessing the data through a GIS platform to better understand source water protection. The storyboard can be found here:

<https://epa.maps.arcgis.com/apps/Cascade/index.html?appid=25bd8df30dcb4f729b8c617d1e0ac4c9>



# 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.
- ❖ **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- ❖ **Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- ❖ **Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- ❖ **Radioactive Contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

PWD Washington would notify customers immediately if source water contamination resulted in drinking water that was unsafe for consumption and use.

If you have any questions with regard to the quality of the Washington Navy Yard's drinking water, contact PWD Washington's Drinking Water Program Manager at (202) 685-8007 or the Installation Environmental Program Director at (202) 433-0415.



# Microbial and Inorganic Contaminants That You Should Know About



## *Cryptosporidium*

The Washington Aqueduct monitors for *Cryptosporidium* in the Potomac River. *Cryptosporidium* is a microbial pathogen found in most surface water in the U.S. *Cryptosporidium* was monitored in the source water monthly in 2018. *Cryptosporidium* oocysts were detected in eight samples collected at the Little Falls and/or Great Falls Intakes (before treatment) in February, March, April, June and November with concentrations ranging from 0.093 to 0.350 oocysts/L.

Ingesting *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 are at greater risk of developing a life-threatening illness. NAVFAC Washington encourages immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection.

## *Lead*

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 water service lines and home plumbing. WNY 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. WNY is required to test for lead every three years and the last testing period was in 2016. WNY met EPA standards for lead during that period (see Table 1).

If you are concerned about lead in WNY water, please contact Public Works Department (PWD) Washington Drinking Water Program Manager, at (202) 433-4191. 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 (800) 426-4791 or at <http://water.epa.gov/drink/info/lead/index.cfm>.





## *Total Coliforms and E. Coli*

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. If coliforms are found in our water distribution system, PWD Washington would need to look for potential problems in the water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

# Important 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. The EPA and 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. 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 EPA's Safe Drinking Water Hotline (800) 426-4791.





# Routine Sampling and Monitoring Results

Public Works Department Environmental (PWD-E) conducts routine sampling and monitoring activities at the Washington Navy Yard (WNY). A summary of these monitoring results is contained in the following tables. Abbreviations are defined on page 13.

Microbial Indicators							
	Units	EPA Limits		Washington Navy Yard Drinking Water			Description / Typical Sources of Contaminants
		MCLG	MCL or TT	Highest	Range	Violation	
Total Coliform Bacteria	Number Positive Samples	0	1	1	1	No	Naturally present in the environment
E. coli Bacteria	Number Positive Samples	0	0	0	0	No	Human and animal fecal waste

Disinfectants							
	Units	EPA Limits		Washington Navy Yard Drinking Water			Description / Typical Sources of Contaminants
		MRDLG (annual average)	MRDL (annual average)	Highest running annual average	Range of single site results	Violation	
Chlorine	ppm	4	4	3.12	0.16 - 5.00	No	Water additive that protects against microbiological contamination. Chlorine is combined with ammonia to form chloramine

Disinfection Byproducts							
	Units	EPA Limits		Washington Navy Yard Drinking Water			Description / Typical Sources of Contaminants
		MCLG	MCL or TT	Highest locational running annual average	Range of single site results	Violation	
Total Trihalomethanes	ppb	N/A	80	47	12 to 63	*Failure to properly monitor	Trihalomethanes are a byproduct of chlorination
Haloacetic Acids	ppb	N/A	60	40	13 to 56		Haloacetic acids are a byproduct of chlorination

Disinfection byproducts are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acids. USEPA set standards for controlling the levels of disinfectants and disinfectant byproducts in drinking water, including both TTHMs and HAAs.

\*The failure to properly monitor is explained under Public Notices of Violation.

Nitrate and Nitrite							
	Units	EPA Limits		Washington Navy Yard Drinking Water			Description / Typical Sources of Contaminants
		MCLG	MCL or TT	Highest	Range	Violation	
Nitrate	ppm	10	10	1.8	1.7 - 1.8	No	Runoff from fertilizer use; erosion from natural deposits
Nitrite	ppm	1	1	< 0.20	< 0.20	No	Runoff from fertilizer use; erosion from natural deposits

Nitrite results are from the 2018 monitoring year, which is the most recent sampling completed in accordance with Federal regulations.

Unregulated Contaminants						
	Units	EPA Limits		Washington Navy Yard Drinking Water		
		MCLG	MCL or TT	Average	Range	Violation
HAA5	µg/L	N/A	N/A	35.28	9 - 56.6	*Failure to properly monitor
HAA6Br	µg/L	N/A	N/A	9.45	7.8 - 12.0	
HAA9	µg/L	N/A	N/A	43.05	31.8 - 60.0	
germanium	µg/L	N/A	N/A	< 0.3	N/A	No
manganese	µg/L	N/A	N/A	1.19	0.95 - 1.8	No
alpha-hexachlorocyclohexane	µg/L	N/A	N/A	< 0.01	N/A	No
profenofos	µg/L	N/A	N/A	< 0.3	N/A	No
chlorpyrifos	µg/L	N/A	N/A	< 0.03	N/A	No
tebuconazole	µg/L	N/A	N/A	< 0.2	N/A	No
dimethipin	µg/L	N/A	N/A	< 0.2	N/A	No
total permethrin	µg/L	N/A	N/A	< 0.04	N/A	No
ethoprop	µg/L	N/A	N/A	< 0.03	N/A	No
tribufos	µg/L	N/A	N/A	< 0.07	N/A	No
oxyfluorfen	µg/L	N/A	N/A	< 0.05	N/A	No
1-butanol	µg/L	N/A	N/A	< 2.0	N/A	No
2-propen-1-ol	µg/L	N/A	N/A	< 0.5	N/A	No
2-methoxyethanol	µg/L	N/A	N/A	< 0.4	N/A	No
butylated hydroxyanisole	µg/L	N/A	N/A	0.18	ND - 0.36	No
o-toluidine	µg/L	N/A	N/A	0.055	ND - 0.11	No
quinoline	µg/L	N/A	N/A	0.093	ND - 0.37	No
total microcystins	µg/L	N/A	N/A	ND	ND	No
cylindrospermopsin	µg/L	N/A	N/A	< 0.09	N/A	No
anatoxin-a	µg/L	N/A	N/A	< 0.03	N/A	No

EPA's fourth round of the Unregulated Contaminant Monitoring Rule (UCMR4) requires monitoring for thirty chemical contaminants between 2018 and 2020 using analytical methods developed by EPA and consensus organizations. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted to protect public health. Washington Navy Yard (WNY) monitored for three cyanotoxins during a four consecutive months period from June 2019 through September 2019. Since total cyanotoxins were not detected above the reporting limit, further analysis of the six specific microcystin congeners and nodularin were not required. WNY monitored for twenty additional contaminants during a twelve months period from February 2019 through November 2019. As our customers, you have a right to know that this data is available. If you are interested in learning more about the results, please reach out to the contact person listed in the report. More information on UCMR4 is available at the EPA's website <https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule>

\*The failure to properly monitor is explained under Public Notices of Violation.



# Public Notices of Violation

The Washington Navy Yard (WNY) received one Safe Drinking Water Act (SDWA) notice of violation for two drinking water regulations during calendar year 2019. Although the violation did not represent a potential adverse health effect, WNY is required by federal law to notify all drinking water customers at the installation of these notices.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During calendar year 2019 we did not complete all monitoring or testing for Stage 2 Disinfection Byproducts Rule and Unregulated Contaminant Monitoring Rule, and therefore cannot be sure of the quality of your drinking water during that time.

## Stage 2 Disinfection Byproducts Rule (DBPR) Violation

**Rule Description:** The Stage 1 Disinfectants and Disinfection Byproducts Rule reduces drinking water exposure to disinfection byproducts. The Rule applies to community water systems and non-transient non-community systems, including those serving fewer than 10,000 people that add a disinfectant to the drinking water during any part of the treatment process. The Stage 2 DBPR strengthens public health protection by tightening compliance monitoring requirements for Trihalomethanes (TTHM) and Haloacetic acids (HAA5).

**Violation Description:** The Washington Navy Yard collected a second quarter sample on May 1, 2019 at a location not approved by the Environmental Protection Agency (EPA). The unapproved sample was not considered for compliance with the Stage 2 regulation and, as such, the action is deemed a failure to monitor. Failure to monitor is a violation of the Stage 2 Disinfection Byproducts regulation at 40 C.F.R. §141.620(e).

**Violation Correction:** All WNY sampling locations are currently approved by EPA and therefore sampling procedures are compliant.



## Fourth Unregulated Contaminant Monitoring Rule (UCMR4) Violation

**Rule Description:** UCMR4 requires monitoring for thirty currently unregulated chemical contaminants between 2018 and 2020 using analytical methods developed by EPA and consensus organizations. This monitoring provides a basis for future regulatory actions to protect public health. Public Water Systems (PWSs) were required to monitor for ten cyanotoxins during a four consecutive month period from June 2019 through September 2019 and for twenty additional contaminants during a twelve month period from February 2019 through November 2019.

**Violation Description:** The Washington Navy Yard (WNY) was required to monitor for brominated haloacetic acid groups at all Stage 2 monitoring locations during the monitoring period specified by EPA. WNY was directed to conduct such monitoring each quarter of calendar year 2019. Due to a misunderstanding, WNY failed to collect any UCMR4 samples at three of four Stage 2 monitoring locations throughout 2019. This failure to monitor is a violation of the Unregulated Contaminant Monitoring Rule Regulation, 40 C.F.R. §141.40(a) (6).

**Violation Correction:** WNY will collect UCMR4 samples at the three remaining Stage 2 sampling locations during the months of February, May, August and November of 2020.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly. You can do this by posting this notice in a public place or distributing copies by hand or mail.



# Washington Aqueduct

## Water Quality

The quality of the water being produced at Washington Aqueduct is excellent. It meets or exceeds all United States Environmental Protection Agency (US EPA) standards and requirements.

Recent improvements in coagulation and filtration have enabled Washington Aqueduct to keep its filtered water turbidity at less than 0.1 NTU (Nephelometric Turbidity Unit). This is much lower than the US EPA standard of 0.3 NTU. This extremely low turbidity provides excellent barrier against pathogens such as Cryptosporidium and Giardia.

Their disinfection system is designed to keep the water safe in our wholesale customers' distribution systems all the way to the consumer. The conversion to chloramines as a secondary disinfectant in the fall of 2000 has worked extremely well in controlling coliform bacteria in the distribution system as well as dramatically lowering the levels of disinfection byproducts. US EPA recently required that concentrations of these byproducts, which are compounds known as Trihalomethanes and Haloacetic acids, be reduced. Washington Aqueduct is in full compliance with those new lower limits.

Each year the Washington Aqueduct laboratory conducts more than 65,000 individual tests on water samples. The tests look for bacterial, as well as organic and inorganic compounds and metals. The treatment plant has state of the art equipment and are certified by US EPA for the tests they perform. Hundreds of elements and compounds are addressed. The goal of this is to know what's in the drinking water and to make sure that the treatment operations are operating to properly protect the consumer.

Potential contaminants of interest such as arsenic and lead are routinely tested for Washington Aqueduct. For information about your drinking water supplier, please visit [www.nab.usace.army.mil/Missions/Washington-Aqueduct](http://www.nab.usace.army.mil/Missions/Washington-Aqueduct).



# Maintaining Water Quality

## *What can I do as a user to improve water quality?*

As a user you play a larger role in enhancing the water quality within the building. Here are a few actions that can be taken to prevent water quality degradation and even contamination.

- ✓ **Flush Lines After Extended Periods of Stagnation (COVID-19 Extended Telework)** - Buildings will shut down over weekends, holidays and currently, for several months due to the COVID-19 Pandemic. Following extended days of water stagnation, flush a tap at the farthest end of the building from where the water originates on each floor for 15 minutes. In addition, flush each frequently used fountain/tap for 5 minutes before use.
- ✓ **Maintain Water Fountains** - Many fountains have filters that remove chlorine taste, reduce byproducts of chlorine, and reduce sediments and particulate metals such as lead, copper, and iron which can leach from in-house plumbing. However, without routine maintenance and changing of these filters as recommended by the manufacturer, water quality will diminish considerably. Carbon filters that are not changed will eventually accumulate enough nutrients for bacteria to grow. As bacteria activity increases, their byproducts can reduce water quality. Another common water filter is a sediment filter. If these filters are not routinely changed in accordance with the manufacturer's recommendation, they may introduce contaminants into the water.
- ✓ **Clean Strainers/ Aerators** - Periodically remove and clean the strainer/ aerator device on faucets in the building to remove debris.
- ✓ **Keep Water Coolers Clean** - Many buildings purchase bottled water coolers for drinking water purposes. Unlike tap water, the water provided in these coolers contains no disinfectant and therefore provides the potential for bacterial growth in the cooler dispenser. Coolers must be routinely cleaned as prescribed by the manufacturer.







# Definitions

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

**Level 1 Assessment:** A basic examination of the source water, treatment, distribution system and relevant operational practices.

**Level 2 Assessment:** A detailed examination of the water system, its operational practices and monitoring program and results. The elements of a Level 2 assessment are the same as those of a Level 1 assessment, but each element is investigated in greater detail.

**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 -Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health.

**MRDL:** Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water.

**MRDLG:** Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health.

**ND:** Not Detected

**ppb - ppm:** parts per billion / parts per million

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

# Public Participation

PWD Washington welcomes your feedback, questions, and comments. Please contact (202) 685-8007 or (202) 433-0415 at any time to discuss your concerns. The DC Water Board of Directors conducts regularly scheduled board meetings that are open to the public, generally on the first Thursday of each month, at 9:30 am. at 1835 Canal Street, SW, Washington, DC 20003. Please visit [dcwater.com](http://dcwater.com) or contact the Office of the Board Secretary at (202) 787-2330 to confirm a meeting time and location.



## Washington Navy Yard

