2019

Drinking Water Quality Report

SUMMARIZING 2018 WATER QUALITY TEST RESULTS

dc water is life®

2019 Drinking Water Quality Report

DC WATER CONTACT INFORMATION

Drinking Water Division ..... (202) 612-3440
Customer Service ..... (202) 354-3600
24-Hour Command Center ..... (202) 612-3400
Office of Marketing and Communications ..... (202) 787-2200
dcwater.com

ADDITIONAL CONTACTS:

US Army Corps of Engineers Washington Aqueduct ..... (202) 764-2753
nab.usace.army.mil/Missions/Washington-Aqueduct/

Department of Energy and Environment ..... (202) 535-2600
doee.dc.gov

Interstate Commission on the Potomac River Basin ..... (301) 984-1908
potomacriver.org

EPA Region III Drinking Water Section ..... (215) 814-5122

The **2019 Water Quality Report** is available for download at **dcwater.com/waterreport**.

Reports from previous years can be viewed at **dcwater.com/testresults**.
Please call (202) 787-2200 or send an email to communications@dcwater.com to request a printed copy.

Este reporte contiene información importante sobre su agua potable. Para obtener una traducción del reporte, por favor comuníquese con la Oficina de Asuntos Externos a través de 202-354-3600 o custserv@dcwater.com.

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该报告包含有关您的饮用水的重要信息。如需翻译版的报告，请联系外事办公室，电话：202-354-3600，电子邮件：custserv@dcwater.com.

Báo cáo này có chứa thông tin quan trọng về nước uống của bạn. Vui lòng liên hệ Phòng Đối Ngoại theo số 202-354-3600 hoặc địa chỉ custserv@dcwater.com nếu bạn muốn có bản dịch báo cáo.

Ce rapport contient des renseignements importants à propos de votre eau potable. Si vous souhaitez vous procurer un rapport traduit, veuillez communiquer avec le Bureau des affaires extérieures en composant le 202-354-3600, ou connectez-vous à custserv@dcwater.com.

If you have a question about this report and require assistance from a translator, please contact Customer Service at (202) 354-3600 (8 a.m. to 5 p.m., Monday through Friday).

2019 Drinking Water Quality Report

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Get Involved

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, except August, at 9:30 a.m. at the DC Water Headquarters, 1385 Canal St, SE, Washington DC 20003. Please visit **dcwater.com** or contact the Office of the Board Secretary at **202-787-2330** to confirm a meeting time and location.

CEO's Message

Dear Customers,

I am proud to present this year's annual water quality report that details the exceptional quality of the District's drinking water.

The mission of every water utility is to safely and reliably deliver the most precious resource to its community: clean water. Our team of more than 1,000 employees works 24/7 to do just that, and we take pride in the water we provide to our customers, friends and families in Washington, DC.

Water is the lifeblood of any city, and our experts test and monitor water quality around the clock to ensure the water we deliver to your homes and businesses meets the rigorous standards set forth by the federal Safe Drinking Water Act.

For more than ten years DC Water has met every federal water standard, including for lead, and we are fully committed to making sure our water remains safe. Our water monitoring programs go above and beyond what is required—last year we performed more than 40,000 quality tests from water samples across the city.

The District's drinking water met every standard, and remains clean, safe and good for you. Please take this opportunity to learn more about the District's drinking water quality, and efforts to protect the environment. I encourage you to call, email, or reach out to us via social media if you have any questions, concerns or suggestions. Thank you for your continued support.

Sincerely,

David L. Gadis, CEO

Your Drinking Water Source

Where does our drinking water come from?

The District of Columbia's drinking water comes from the Potomac River. The Washington Aqueduct (Aqueduct) withdraws about 140 million gallons of water each day from intakes at Great Falls and Little Falls.

Who treats our drinking water?

DC Water purchases treated drinking water from the Aqueduct which is owned and operated by the U.S. Army Corps of Engineers. The Aqueduct filters, cleans, and fortifies water at the Dalecarlia and McMillan treatment plants to meet all water quality standards set by the U.S. Environmental Protection Agency (EPA).

During the treatment process, drinking water is enhanced with beneficial compounds like fluoride that improve public health.

Great Falls

1. Great Falls water intake
2. Little Falls water intake
3. Raw water conduit
4. Dalecarlia Reservoir and Water Treatment Plant
5. McMillan Reservoir and Water Treatment Plant
6. Georgetown Reservoir

DC Water's Headquarters

Water Treatment

What is drinking water treatment?

Like most public water systems around the country, the Aqueduct uses a multi-step treatment process to turn "raw" water from the Potomac River into clean, safe drinking water. The treatment process includes sedimentation, filtration, fluoridation, pH adjustment, disinfection using free chlorine and chloramine (a combination of chlorine and ammonia), and corrosion control using orthophosphate.

How is chlorine used to clean water?

Chlorine is commonly used by water utilities to kill viruses and bacteria that can be found in rivers and other sources of drinking water. The Aqueduct first adds chlorine and then adds ammonia to create chloramine, a more persistent disinfectant that keeps water clean as it travels through DC Water's pipe system.

DC Water continuously monitors the drinking water to ensure that safe disinfectant levels are maintained in the distribution system. Even at safe levels, it is necessary for chloramine to be removed from water used for kidney dialysis and aquariums. Contact your kidney dialysis center, physician or local pet store about water treatment for removing chloramine. For more information about chloramine, visit **dcwater.com/water-faqs**.

Why does water have a strong chlorine smell in the spring?

Most of the year, the Aqueduct produces drinking water with chloramine as the residual disinfectant that keeps it clean. For a short time each spring, the Aqueduct temporarily switches from using chloramine to only chlorine. This change is standard practice for utilities that use chloramine—it helps keep pipes clean, and optimizes water quality throughout the year. The level of chlorine is safe for consumption, but you can reduce the chlorine smell and taste by placing an open pitcher of water in the fridge. If you haven't used water in several hours, let the cold water run for 2 minutes before filling the pitcher.

HOW IS OUR WATER TREATED?

Screens
Large debris such as branches and scrap wood are removed from raw water.

Pre-Sedimentation
Large particles in untreated water settle out naturally.

Coagulation
Coagulants are added to the water to cause particles to stick together when the water is gently mixed (known as flocculation), creating larger, heavier particles.

Sedimentation
Large particles settle to the bottom of sedimentation tanks.

Filtration
Gravity filters, composed of hard coal (anthracite), sand, and gravel layers, remove smaller particles still remaining in the water.

Fluoridation
Fluoride is added to protect teeth (as recommended by the American Dental Association).

Corrosion Control
Lime and Caustic Soda are added to adjust pH for optimum corrosion control. Orthophosphate is added to prevent corrosion in pipes.

Primary Disinfection
Chlorine is added to the water to kill potentially harmful organisms before the water leaves the plant.

Secondary Disinfection
Ammonia is added just before the water leaves the plant to create chloramine. Chloramine maintains the disinfection in the distribution system.

From Treatment to Tap

How do we get our drinking water?

DC Water distributes about 100 million gallons of clean drinking water every day to more than 700,000 residential, commercial, and governmental customers in the District of Columbia, and parts of Maryland and Virginia.

Drinking water travels through a complex system of about 1,350 miles of water mains throughout the city.

DC Water tests and monitors drinking water quality around the clock as it flows through our system, ensuring tap water continues to meet all safe water standards.

How does DC Water monitor water quality?

DC Water's monitoring program—far more extensive than required by law—demonstrates that the quality of the District's drinking water remains high and meets all federal drinking water standards.

Our dedicated team performed more than 40,000 tests from 6,500 water samples taken at points throughout the city. These tests confirmed that our city's tap water meets or exceeds all regulations set by the Safe Drinking Water Act.

What are the drinking water regulations?

The Safe Drinking Water Act defines the term "contaminant" as meaning any physical, chemical, biological, or radiological substance or matter in water. Therefore, the law defines "contaminant" very broadly as being anything other than water molecules. Even beneficial compounds like fluoride, essential nutrients, and naturally-occurring minerals are considered "contaminants."

In order to ensure that tap water is safe to drink, the EPA has regulations that limit the amount of certain contaminants in water provided by water suppliers. The Food and Drug Administration establishes limits for contaminants in bottled water which must provide similar 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (**800-426-4791**).

For additional information about drinking water regulations, visit **epa.gov/dwstandardsregulations**.

Protecting the Potomac

How does DC Water safeguard our drinking water source?

High quality tap water starts with a healthy river. Our drinking water comes from a single "surface water" supply, as opposed to an aquifer or groundwater supply. The abundant Potomac River is also a source of water for many other water utilities including the Washington Suburban Sanitation Commission (WSSC), Fairfax Water, and Arlington County. DC Water works with these utilities, environmental groups, government agencies, and other organizations to ensure the Potomac River remains clean and healthy.

DC Water takes an active role in the Potomac River Basin Drinking Water Source Protection Partnership (Partnership)—a cooperative group of 27 utilities, government agencies and regional stakeholders.

The Partnership strategically addresses the multi-faceted issues that affect the region's drinking water supply. Our work includes minimizing the impact of agriculture on water quality, coordinating response efforts during emergency situations, contributing to the latest environmental assessments, and educating residents about the importance of protecting upstream drinking water sources.

Today, the District of Columbia is part of a watershed that is cleaner and healthier than ever before.

The Interstate Commission on the Potomac River Basin (ICPRB) conducted a Source Water Assessment of the Potomac River watershed in April, 2002 under contract with the District of Columbia government. The assessment, titled The District of Columbia Source Water Assessment, identified urban runoff, toxic spills, agriculture and inadequate wastewater treatment as potential contamination sources to the water supply. The Drinking Water Source Protection Partnership is working with the Metropolitan Washington Council of Governments to update the 2002 assessment. A redacted version of the District of Columbia Source Water Assessment can be found on the ICPRB website with the 2002 publications at: **potomacriver.org/publications/**. For more information on the District of Columbia Source Water Assessment, contact ICPRB at **301-984-1908**.

Protecting the Potomac continued

How can sources of drinking water become polluted?

Across the nation, rivers, lakes, streams, ponds, reservoirs, springs and wells are sources of drinking water (both tap water and bottled water). Rain and melting snow travels over the surface of the land or through the ground, dissolving naturally occurring minerals and picking up substances resulting from animal and human activity and carrying these pollutants to our drinking water sources. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria that may come from agricultural livestock operations, septic systems, wastewater treatment plants and wildlife.
- **Inorganic contaminants**, such as salts and metals that can be naturally occurring or result from urban stormwater runoff, farming, and industrial or domestic wastewater discharges.
- **Pesticides and herbicides** that 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 that are by-products of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants** that can be naturally-occurring or the result of mining activities.

What can I do to help?

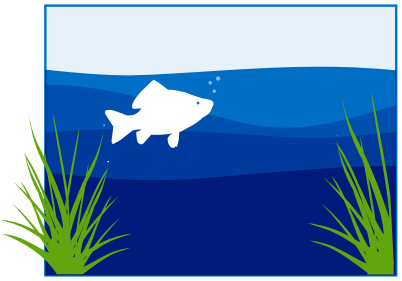
Take pride in the Potomac! The best way to be a steward of the river is to take care of our watershed—the area of land that drains to the river.

- Prevent litter and pick up pet waste.
- Use only enough pesticides, landscaping chemicals, and fertilizer as necessary. Excess garden and lawn-care materials wash into and pollute waterways during rainfall.
- Consider using Bloom—a safe, Class-A soil conditioner for your garden (**bloomsoil.com**).
- Dispose of household waste, grease and motor oil properly, not down sinks or storm drains.
- Prevent trash and debris from entering storm drains and catch basins. To report a clogged drain or basin, call **202-612-3400**.
- Report spills that could potentially enter the waterways by calling **911**.
- Get rid of unwanted or expired medication at a drug-take back location or throw it in the trash. Flushing pharmaceuticals down the toilet can harm our rivers. Learn more at **protectyourpipes.org**.

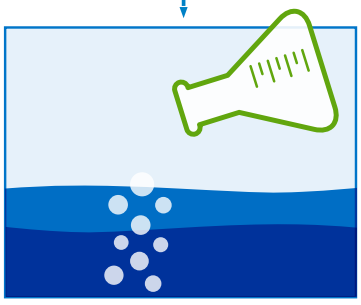
Ensuring the Best

The Washington Aqueduct, DC Water and Residents Work Together to Ensure Water Quality

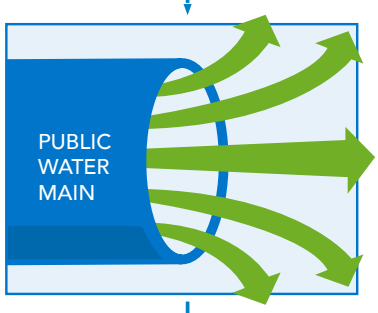
Drinking water is drawn from the Potomac River by the Washington Aqueduct.



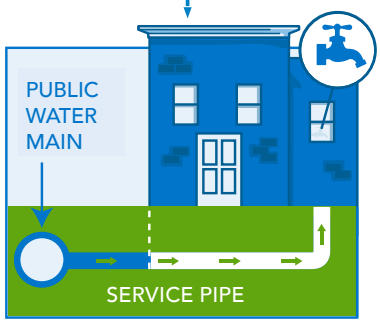
The Washington Aqueduct treats source (or raw) water to provide clean drinking water.



DC Water operates a large distribution system and monitors water quality in the distribution system.



Customers maintain plumbing in the home to protect water quality.



KEEPING TAP WATER FRESH AT HOME

A few simple tips can help ensure clean, fresh water every time you turn on the tap.

1. **Flush cold taps** for two minutes before using water for drinking and cooking when household water has not been used for several hours.

   When water sits in your pipes for long periods of time, water quality can degrade.

2. **Use only cold water** for drinking and cooking.

   Build-up of metals, sediment and bacteria in your hot water heater can enter your tap water when it runs through the water heater.

3. **Clean faucet aerators** every three months.

   Sediment and metals can collect in the aerator screen located at the tip of your faucets. Replace aerators that are in poor condition (available at local hardware stores).

4. **Routinely replace filter** cartridges according to manufacturer's instructions.

Get more bilingual tips at **dcwater.com/water-quality-home**.

Lead in Drinking Water

How does DC Water address lead?

DC Water works with the Aqueduct to control corrosion of pipes and plumbing throughout the District, which minimizes the release of lead into water. DC Water meets all EPA standards for lead in water, and continues to monitor for lead at the tap, replace lead service pipes, and help customers identify and remove lead sources on their property.

How does lead get into water?

Water is essentially lead-free when it leaves the Aqueduct's treatment facility and travels through DC Water's distribution system. Clean water can come in contact with lead as it flows through plumbing in and around your home. Lead enters water through corroding plumbing materials including lead service pipes, galvanized iron household pipes, lead solder, and brass faucets, valves, or fittings.

How can I get rid of lead?

Identify and remove all sources of lead to eliminate the risk of lead in water.

1. Order a free lead test kit by contacting the Drinking Water Division at **202-612-3440** or email **leadtest@dcwater.com**. Lead test kits are provided to both single- and multi-family residences as well as commercial customers. These tests can indicate the presence of lead in the service pipe or household plumbing.

2. Check the interactive map to identify the material of your service pipe. This information is based on available historic records, and may not be up to date. (**dcwater.com/servicemap**)

3. Determine household pipe and plumbing if the pipe material is listed as "unknown" by contacting a licensed plumber or following our pipe identification guide (Español). Additional

TYPES OF WATER PIPES

Lead

A dull, silver-gray color that is easily scratched with a coin. Use a magnet - strong magnets will *not* cling to lead pipes.

Galvanized

A dull, silver-gray color. Use a magnet - strong magnets *will* typically cling to galvanized pipes.

Copper

The color of a copper penny.

Plastic

White, rigid pipe.

SERVICE LINE MAP

Use our map to check for lead service lines on your property.

Lead service lines were predominately installed prior to the mid-1950s in the District of Columbia, but there are records of lead service lines being installed as late as 1977. You can use our service line map to see the information DC Water has about your service line at **dcwater.com/servicemap**.

Lead in Drinking Water continued

sources of lead may exist in lead solder, brass faucets, valves or fittings. (**dcwater.com/identifylead**)

4. Replace your lead pipes and plumbing. DC Water has several programs for lead service pipe replacement, and DC Water will always cover cost of replacement in public space. (**dcwater.com/replacelead**)

5. Learn more about our lead program and download or request hard copies of lead information in both English and Spanish. (**dcwater.com/lead**, **dcwater.com/lead-brochures**)

How can I reduce my risk of lead exposure?

If you have lead pipes, fixtures, or are unsure about the material type, take steps to minimize possible exposure until all sources of lead are removed.

1. **Flush your pipes** before using any tap water for drinking or cooking. Run cold water until the temperature changes and then allow it to run for an additional two minutes.

2. **Use only cold water** for drinking and cooking including water used for infant formula, beverages, and ice.

3. **Filter your water** if there are known or suspected lead sources. Ensure the filter is antimicrobial and certified for lead removal.

4. **Remove and clean** faucet aerators every 3 months.

5. **Request a free lead test kit** to identify potential sources of lead (**202-612-3440** or **leadtest@dcwater.com**).

6. **Request free information** at **dcwater.com/lead-brochures**, and visit **dcwater.com/lead** for more information.

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. DC Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (**800-426-4791**) or at **epa.gov/safewater/lead**.

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. EPA and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (**800-426-4791**).

Water Quality Analysis Data

Giardia

The Aqueduct monitored for *Giardia* in the source water (Potomac River) by collecting samples at the Little Falls and/or Great Falls intakes every month in 2018. *Giardia* cysts were detected in ten samples with concentrations ranging from 0.091 to 1.143 cysts per liter.

Cryptosporidium

The Aqueduct monitored for *Cryptosporidium* in the source water (Potomac River) by collecting samples from the Little Falls and/or Great Falls intakes every month in 2018. *Cryptosporidium* oocysts were detected in eight samples with concentrations ranging from 0.093 to 0.350 oocysts per liter.

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these microorganisms in the Potomac River. Current test methods do not allow us to determine if the microorganisms 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. 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. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

Unregulated Contaminant Monitoring

DC Water conducted the Unregulated Contaminant Monitoring Rule (UCMR) monitoring in 2018. The purpose of the rule is to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. The monitoring provides EPA and other interested parties with nationally representative, scientifically valid data on the occurrence of unregulated contaminants in drinking water, the number of people potentially being exposed, and an estimate of the levels of that exposure. These data can support future regulatory determinations, including initiating the process of developing a national primary drinking water regulation, along with other actions to protect public health.

UCMR4 required DC Water test for:

- Nine cyanotoxins and one cyanotoxin group at the Dalecarlia and McMillan treatment plants' entry points to our distribution system.

- Three brominated haloacetic acid (HAA) disinfection byproduct group at 12 sites in DC Water's distribution system. The WA also tested and reported two precursors of HAAs in the source water—total organic carbon (TOC) and bromide.

  – **HAA5 includes**: dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, trichloroacetic acid.

  – **HAA6Br includes**: bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, tribromoacetic acid.

  – **HAA9 includes**: bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, trichloroacetic acid.

- 17 additional contaminants at the Dalecarlia and McMillan treatment plants' entry points to our distribution system: two metals, eight pesticides plus one pesticide manufacturing byproduct; three alcohols; and three semivolatile organic chemicals.

The results for the contaminates that were detected above EPA's required method reporting limits are in the following pages. Alternatively, visit **dcwater.com/UCMR4results**.

District of Columbia Drinking Water Analysis Data for 2018

The following tables represent levels of regulated and unregulated water quality parameters. The test results for these parameters were detected above EPA's analytical method reporting limit from samples collected in the source or finished water for the District of Columbia. Please note, DC Water did not detect any *E.coli* in its Total Coliform Rule monitoring in 2018.

The water quality test results indicate that your drinking water complied with all of the EPA's drinking water standards in 2018.

For testing results from previous years, please visit **dcwater.com/testresults**.

Abbreviations and Definitions

AL (Action Level) - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow. Other requirements may include additional testing, public notification or capital improvements. The AL is not equivalent to a maximum contaminant level or MCL (see definition below).

$CaCO_3$ - Calcium carbonate.

HAA5 (Haloacetic Acids (5)) - The five haloacetic acid species regulated by EPA.

mrem/yr (millirems per year) - A measure of radiation absorbed by the body

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. MDRLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.

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.

NA - Not applicable.

ND - Non-Detectable.

NH_3-N - Measurement of ammonia in the form of nitrogen.

NO_2-N - Measurement of nitrite in the form of nitrogen.

NTU - Turbidity is measured with an instrument called a nephelometer, which measures the intensity of light scattered by suspended matter in the water. Measurements are given in nephelometric turbidity units (NTUs).

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

PO_4 - Phosphate

ppm - parts per million.

ppb - parts per billion.

ppt - parts per trillion.

SMCL (Secondary Maximum Contaminant Limit) - Established only as a guideline to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor.

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

Turbidity - A measure of the cloudiness of water. We measure turbidity because it is a good indicator of the effectiveness of the water treatment system. Turbidity in excess of 5 NTU is just noticeable to the average person.

UCMR - Unregulated Contaminant Monitoring Rule

Regulated Contaminants

WASHINGTON AQUEDUCT WATER TREATMENT PLANT PERFORMANCE					
	Units	EPA Limits		DC Drinking Water	Description / Typical Sources of Contaminants
		MCLG	MCL or TT		
Turbidity	NTU	NA	TT = 1 (maximum)	(maximum hourly) 0.10	Turbidity is often caused by soil runoff
	% of monthly turbidity readings ≤ 0.3 NTU	NA	TT = 95% (minimum)	100%	
Total Organic Carbon (TOC)	removal ratio	NA	TT = > 1 (annual average)	1.32 (lowest annual average) Annual average must be greater than 1.00 to be in compliance	Naturally present in the environment

WATER ENTERING DC WATER'S DISTRIBUTION SYSTEM						
	Units	EPA Limits		DC Drinking Water		Description / Typical Sources of Contaminants
		MCLG	MCL	Highest	Range	
Inorganic Metals						
Arsenic	ppb	0	10	0.4	ND to 0.4	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	ppm	2	2	0.04	0.02 to 0.04	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Inorganic Anions						
Fluoride	ppm	4.0	4.0	0.9	0.4 to 0.9	Water additive which promotes strong teeth
Nitrate as Nitrogen	ppm	10	10	3	0.8 to 3	Runoff from fertilizer use; Erosion of natural deposits
Nitrite as Nitrogen	ppm	1	1	0.01	ND to 0.01	Runoff from fertilizer use; Erosion of natural deposits
Synthetic Organic Contaminants						
Dalapon	ppb	200	200	1	ND to 1	Runoff from herbicide used on rights of way
Volatile Organic Contaminants						
None detected other than TTHMs						
Radionuclides[1]						
Combined Radium-226/228	pCi/L	0	5	2	ND to 2	Erosion of natural deposits

REGULATED CONTAMINANTS continued

1 Triennial radionuclide monitoring was performed in 2017. The measurement of gross beta particles was below the minimum reporting level and therefore uncertain due to interferences such as naturally occurring potassium isotopes.

Regulated Contaminants continued

DC WATER'S DISTRIBUTION SYSTEM							
	Units	EPA Limits		DC Drinking Water		Violation	Description / Typical Sources of Contaminants
		MCLG	MCL	Highest	Range		
DISINFECTANTS AND DISINFECTION BYPRODUCTS							
Chlorine	ppm	4 (MRDLG) (annual average)	4 (MRDL) (annual average)	3.2 (Highest running annual average)	0.15 to 4.0 (Range of single site results)	No	Water additive used to control microbes; Chlorine is combined with ammonia to form chloramine.
Total Trihalomethanes	ppb	NA	80 (4-quarter locational running average)	47 (Highest locational running annual average)	20 to 75 (Range of single site results)	No	By-product of drinking water disinfection.
Haloacetic Acids (5)	ppb	NA	60 (4-quarter locational running average)	34 (Highest location running annual average)	5 to 54 (Range of single site results)	No	By-product of drinking water disinfection.
LEAD AND COPPER (AT THE CUSTOMER'S TAP)							
	Units	EPA Limits		DC Drinking Water		Exceedance	Description / Typical Sources of Contaminants
		MCLG	Action Level	Samples above AL	90th Percentile		
Lead							
January-June Monitoring Period	ppb	0	15	3 of 118	3	No	Corrosion of household plumbing systems; erosion of natural deposits
July-December Monitoring Period	ppb	0	15	0 of 104	2		
Copper							
January-June Monitoring Period	ppm	1.3	1.3	0 of 118	0.112	No	Corrosion of household plumbing systems; erosion of natural deposits
July-December Monitoring Period	ppm	1.3	1.3	0 of 104	0.088		

UCMR RESULTS: DETECTED COMPOUNDS (µg/L, OR PARTS PER BILLION)					
Contaminant	Detected Concentration (µg/L)	Dalecarlia Treatment Plant Entry Point	McMillan Treatment Plan Entry Point	Distribution System	Common Sources
HAA5	Range (min-max)	-	-	5.5-66.0	By-product of drinking water disinfection.
	Average	-	-	34.5	
HAA6Br	Range (min-max)	-	-	0.5-12.6	By-product of drinking water disinfection.
	Average	-	-	8.2	
HAA9	Range (min-max)	-	-	6.0-74.4	By-product of drinking water disinfection.
	Average	-	-	42.4	
Manganese	Range (min-max)	0.7-1.2	Below 0.4 (minimum reporting level)	-	Naturally-occurring element and essential nutrient that can be found ubiquitously in the air, soil, and water. Manganese is commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical.
	Average	0.9	Below 0.4 (minimum reporting level)	-	

DETECTED CONTAMINANTS WITHOUT PRIMARY MCLS OR TREATMENT TECHNIQUES ENTERING DC WATER'S DISTRIBUTION SYSTEM			
Parameter	Units	Average	Range
Aluminum	ppb	28	13 to 63
Bromide	ppm	ND	ND to 0.04
Calcium	ppm	35	22 to 54
Chloride	ppm	29	13 to 66
Copper at Point of Entry[2]	ppb	3.4	0.6 to 10
Lithium	ppb	1.5	0.9 to 3
Magnesium	ppm	6	4 to 12
Manganese	ppb	0.9	ND to 22
Molybdenum	ppb	0.4	0.2 to 0.8
N-Nitroso-dimethylamine (NDMA)	ppt	ND	ND to 2
Nickel	ppb	0.8	ND to 1
Orthophosphate (as PO_4)	ppm	2.4	ND to 3.5
Perchlorate	ppb	0.4	0.2 to 0.9
Sodium	ppm	21	12 to 44
Strontium	ppb	134	95 to 253
Sulfate	ppm	39	29 to 71
THAA (HAA5) at Point of Entry[3]	ppb	27	17 to 42
Total Ammonia	ppm	0.8	0.01 to 1.1
Total Hardness	ppm	113	76 to 183
Total Hardness	grains/gal	7	4 to 11
TTHM at Point of Entry[3]	ppb	33	10 to 65
Zinc	ppb	ND	ND to 2

2 Results represent levels entering DC Water's distribution system and are distinct from lead and copper compliance monitoring conducted in single-family residential homes.
3 Monitoring for these parameters is not required at entry points, but is required in the distribution system

drink tap

dcwater.com/tap

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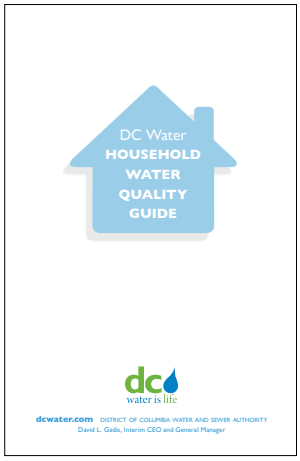
DC Water's
HOUSEHOLD WATER QUALITY GUIDE
(in English and Spanish)



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