



# 2020 Drinking Water Quality Report

SUMMARIZING 2019 WATER QUALITY TEST RESULTS



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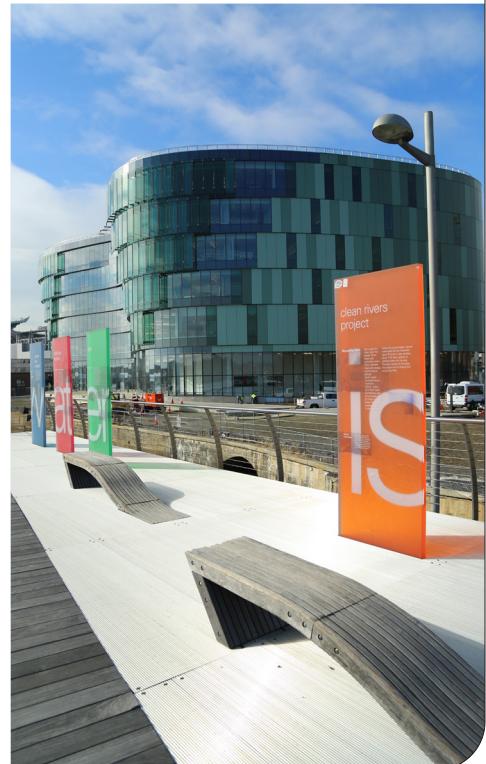
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The 2020 Water Quality Report is available for download at [dcwater.com/waterreport](http://dcwater.com/waterreport). Reports from previous years can be viewed at [dcwater.com/testresults](http://dcwater.com/testresults). Please call 202-787-2200 or send an email to [communications@dcwater.com](mailto:communications@dcwater.com) to request a printed copy.

## 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](http://dcwater.com) or contact the Office of the Board Secretary at **202-787-2330** to confirm a meeting time and location.



# Contact Information

## 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
<a href="http://dcwater.com">dcwater.com</a>	

## ADDITIONAL CONTACTS

US Army Corps of Engineers Washington Aqueduct <a href="http://nab.usace.army.mil/Missions/Washington-Aqueduct/">nab.usace.army.mil/Missions/Washington-Aqueduct/</a>	202-764-2753
Department of Energy and Environment <a href="http://doee.dc.gov">doee.dc.gov</a>	202-535-2600
Interstate Commission on the Potomac River Basin <a href="http://potomacriver.org">potomacriver.org</a>	301-984-1908
EPA Region III Drinking Water Section	215-814-5122

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**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).**

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 del 202-354-3600 o [custserv@dcwater.com](mailto:custserv@dcwater.com)

Báo cáo này có chứa thông tin quan trọng về nước uống của bạn. Vui lòng liên hệ Phòng Đổi Ngoại theo số 202-354-3600 hoặc địa chỉ [custserv@dcwater.com](mailto: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](mailto: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](mailto:custserv@dcwater.com).

# CEO's Message

Dear Customers,

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

Every day we deliver close to 100 million gallons of life's most essential resource—fresh water—to homes, schools, restaurants and dozens of other types of customers each day.

Providing high quality water and reliable sanitation services to our customers day in and day out is our fundamental mission, but our duty goes further than that.

We take care of customers, we protect the environment and we maintain infrastructure that keeps this city thriving. Water connects us all and the importance of safe, clean water cannot be overstated.

Our team of more than 1,000 dedicated employees works hard to ensure our system continuously delivers safe drinking water. Around the clock monitoring and testing shows that the District's drinking water is exceptional: better than the standards set forth by the federal Safe Drinking Water Act.

We're proud that our water monitoring programs go beyond what is required—last year we performed more than 40,000 quality tests across the city. Extensive testing confirms that the tap water we deliver to D.C. is clean, safe and healthy.

Please take this opportunity to learn more about the District's drinking water quality in this report, and our efforts to protect the environment.



**"Our team of more than 1,000 dedicated employees works hard 24-hours a day, 7 days a week to ensure our system continuously delivers the safe clean water to you."**

**DAVID L. GADIS | CEO**

DC Water is here for you—I encourage you to call, email, or reach out to us via social media if you have any questions, concerns or suggestions. Thank you and be safe.

Sincerely,

A handwritten signature in black ink, appearing to read "D. L. Gadis".

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.

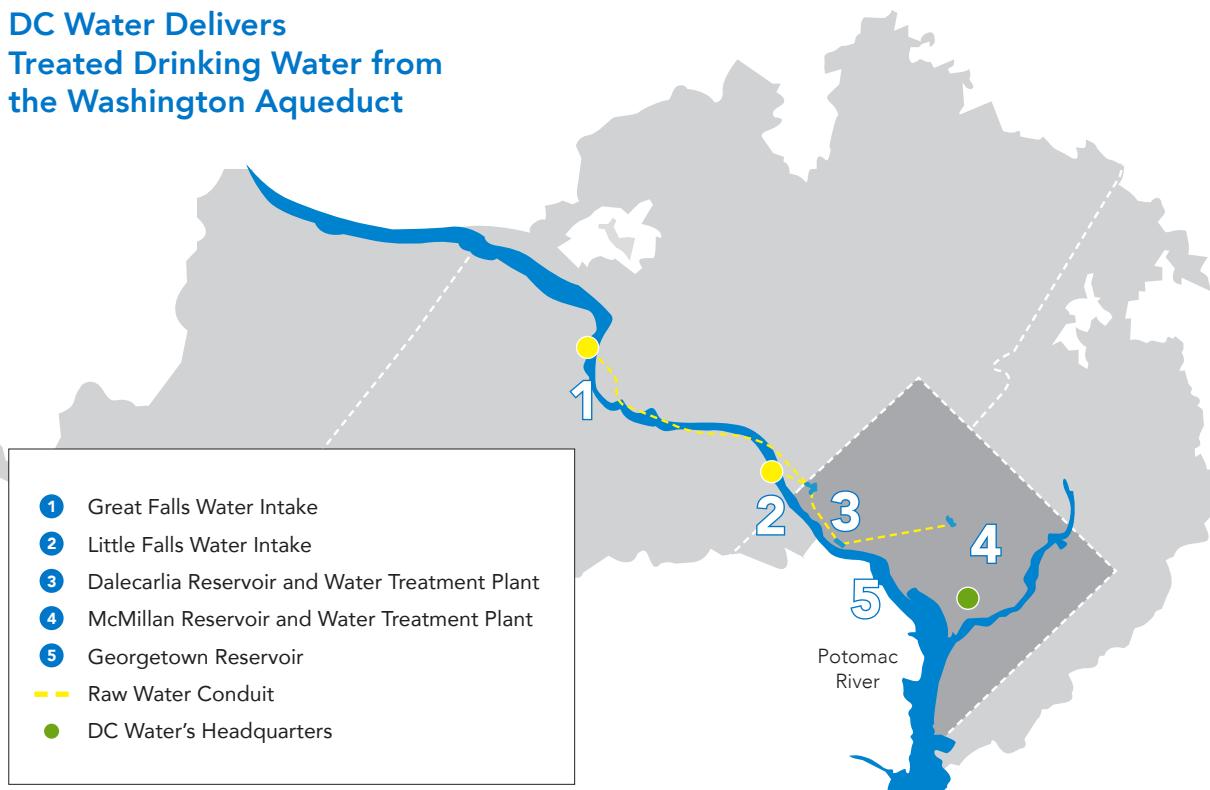
## Who treats our drinking water?

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.

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## DC Water Delivers Treated Drinking Water from the Washington Aqueduct



# 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](http://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 District residents, and our 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



# From Treatment to Tap

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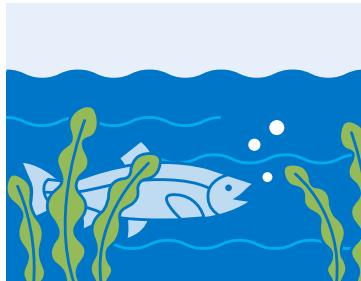
"contaminant" as meaning any physical, chemical, biological, or radiological substance or matter in water. Therefore, the law defines "contaminant" very broadly as being anything other than water molecules. Even beneficial compounds like fluoride, essential nutrients, and naturally-occurring minerals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

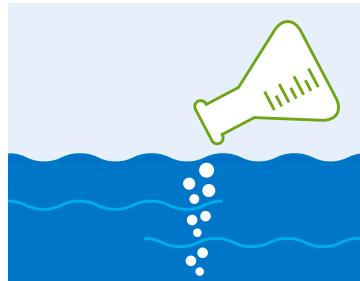
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (**800-426-4791**).

For additional information about drinking water regulations, visit [epa.gov/dwstandardsregulations](http://epa.gov/dwstandardsregulations).

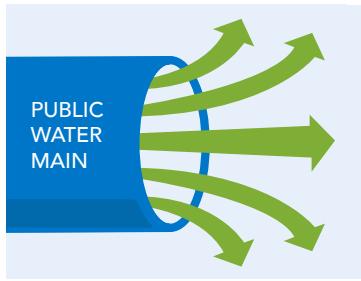
## The Washington Aqueduct, DC Water and Residents Work Together to Ensure Water Quality



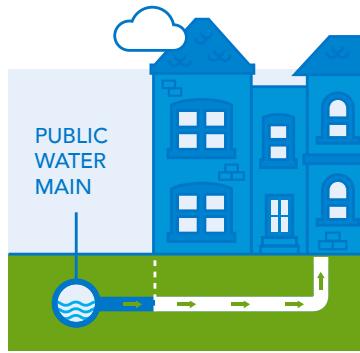
1. Drinking water is drawn from the Potomac River by the Washington Aqueduct.



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



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



4. Customers maintain plumbing in the home to protect water quality.

# Protecting the Potomac

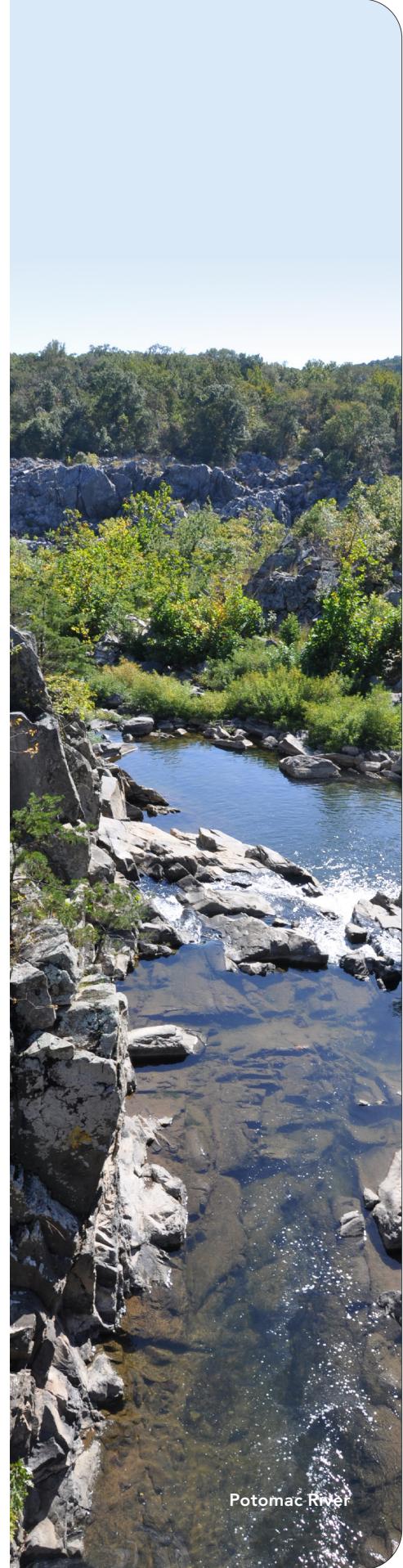
## How does DC Water safeguard our drinking water source?

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—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. 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: [dcwater.com/EPA-Potomac-Source-Water-Assessment-2020](http://dcwater.com/EPA-Potomac-Source-Water-Assessment-2020)



Potomac River

# Protecting the Potomac

continued

Georgetown Waterfront



## 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](http://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](http://protectyourpipes.org).

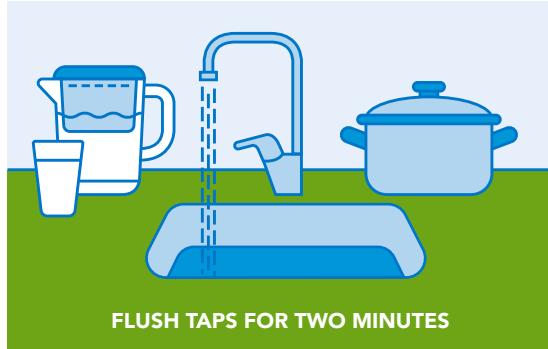
# Ensuring the Best

## Keeping Tap Water Fresh at Home

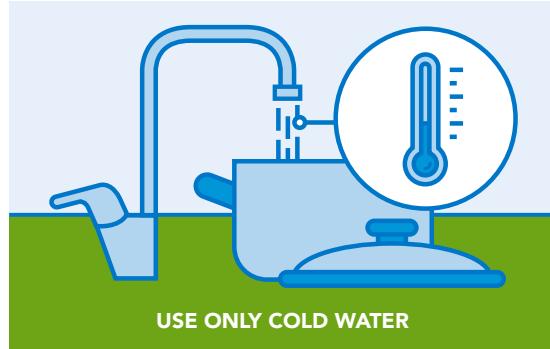
A few simple tips can help ensure clean, fresh water every time you turn on the tap. Get more bilingual tips at [dcwater.com/water-quality-home](http://dcwater.com/water-quality-home).



## Household Water Quality Tips



FLUSH TAPS FOR TWO MINUTES



USE ONLY COLD WATER

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.



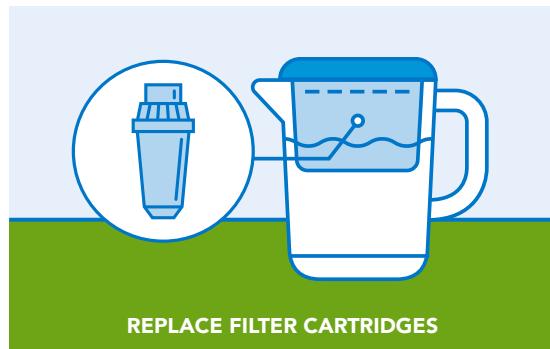
CLEAN FAUCET AERATORS

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).

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.



REPLACE FILTER CARTRIDGES

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

# Lead in Drinking Water



**"Everyone who owns a home in the District should know if they have lead pipes, and work with us to get the lead out."**

DAVID L. GADIS | CEO

## 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. DC Water is fully committed to achieving a Lead Free DC. Learn more about lead pipe replacement programs on page 15.

## 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.



# Lead in Drinking Water

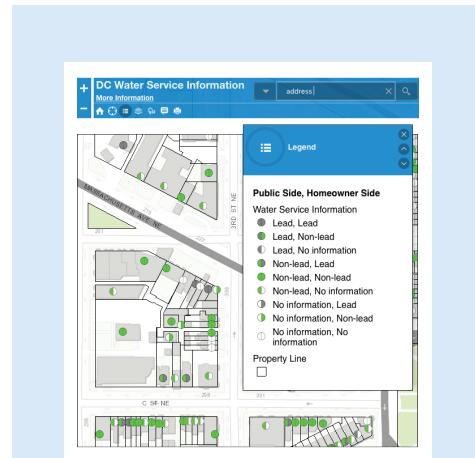
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## How can I get rid of lead?

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](mailto: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. ([dcwater.com/leadtest](http://dcwater.com/leadtest))
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](http://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 sources of lead may exist in lead solder, brass faucets, valves or fittings. ([dcwater.com/identifylead](http://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](http://dcwater.com/replacelead)). Learn more on page 15.
5. Learn more about our lead program and download or request hard copies of lead information in both English and Spanish. ([dcwater.com/lead](http://dcwater.com/lead) and [dcwater.com/lead-brochures](http://dcwater.com/lead-brochures))



## 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](http://dcwater.com/servicemap).

# Lead in Drinking Water

continued



## 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](mailto:leadtest@dcwater.com)).
6. Request free information at [dcwater.com/lead-brochures](http://dcwater.com/lead-brochures), and visit [dcwater.com/lead](http://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](http://epa.gov/safewater/lead).

## Types of Water Pipes (Service Lines)

**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 penny.



**Plastic** – White, rigid pipe.



**Brass** – Dark reddish brown to a light silvery color. Older pipes may be corroded and may contain lead.



# Lead in Drinking Water

continued



## How can DC Water help replace lead service pipes?

Like most older cities, homes built before the 1980's were typically built with a lead service line—the pipe that connects the city water supply to your household plumbing. DC Water operates several programs for lead service line replacement. DC Water always pays for lead pipe replacement in public space, and District funds are now available to help customers pay for replacement on private property.

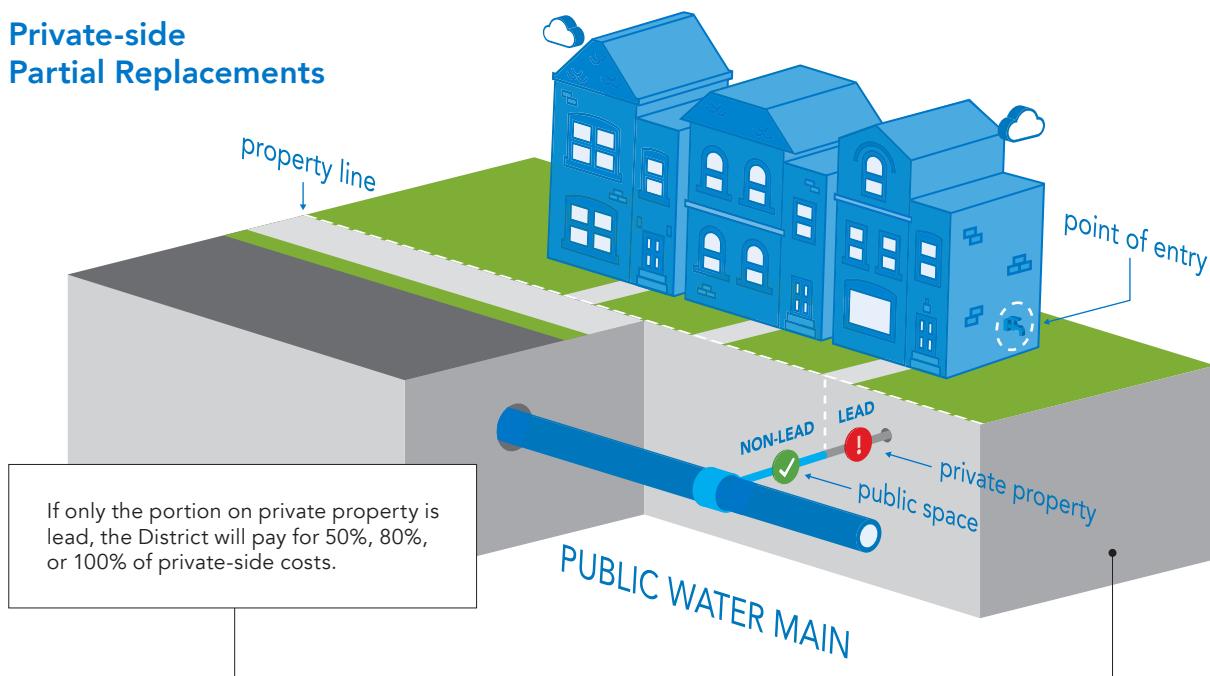
### Private-side Partial Replacements

For residents with lead pipe on private property, and non-lead pipe in public space, the **Lead Pipe Replacement Assistance Program (LPRAP)** uses District funds to provide a **free or discounted replacement**. Each property owners can receive a 50% discount, **regardless of income**. Some residents will qualify for 80% or 100% coverage depending on household size and income. Property owners can visit [dcwater.com/LPRAP](http://dcwater.com/LPRAP) to learn how to get a cost proposal for work from a qualified plumber, and then apply with the Department of Energy and Environment (DOEE).

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### Private-side Partial Replacements



Lead in Drinking Water →

# Lead in Drinking Water

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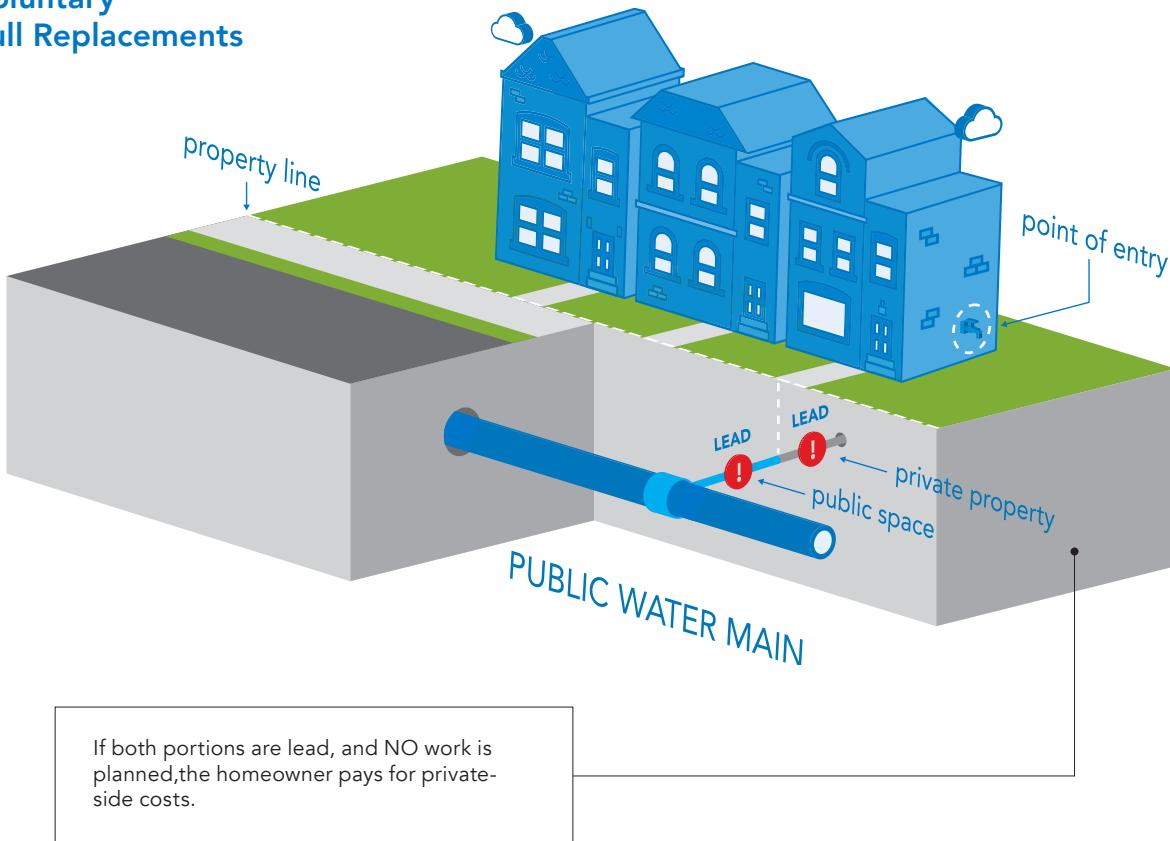


## Voluntary Full Replacements

If both the public and private portions of service line are lead, and no capital improvement projects are planned for the neighborhood, customers can enroll in the **Voluntary Replacement Program**.

DC Water will pay for all work in public space, and coordinate work so both portions are replaced at the same time. The property owner pays for work on private property. For more information visit [dcwater.com/voluntary-replacement](http://dcwater.com/voluntary-replacement) or email [lead@dcwater.com](mailto:lead@dcwater.com).

## Voluntary Full Replacements



# Lead in Drinking Water

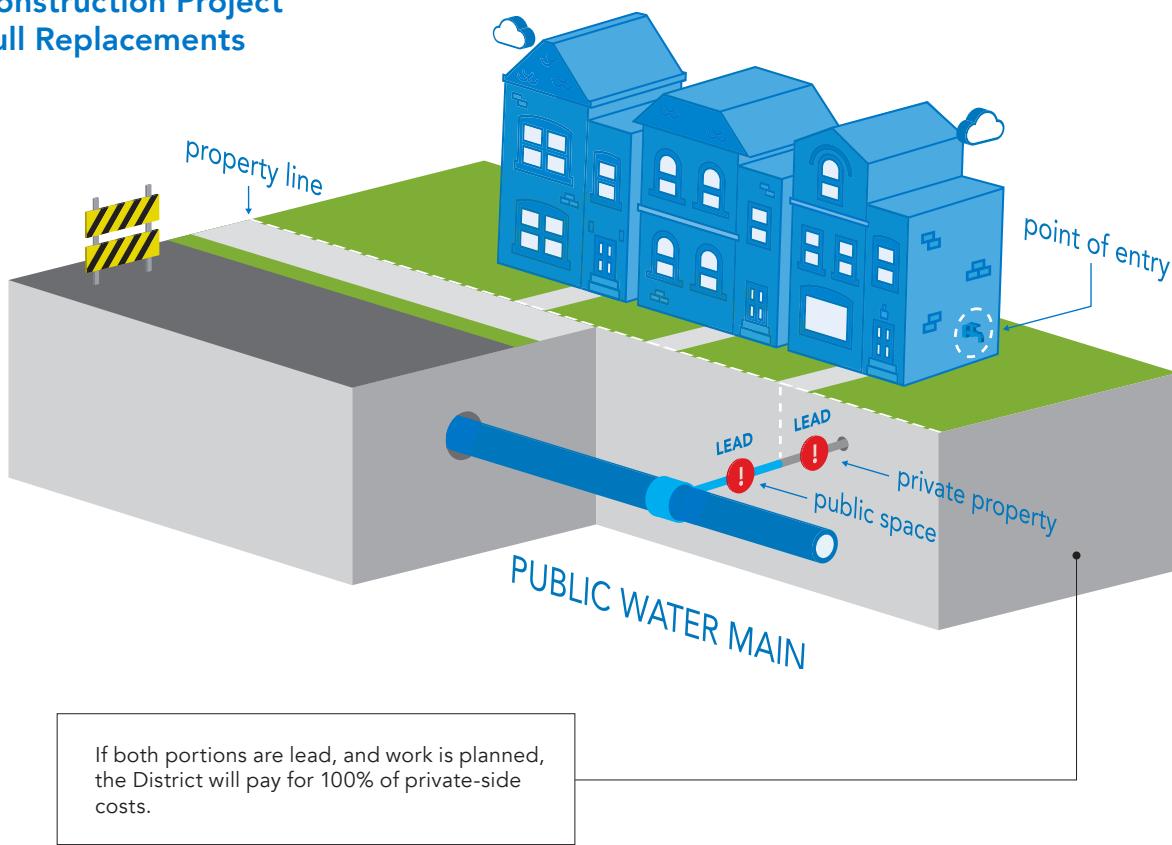
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## Construction Project Full Replacements

Each year, DC Water replaces lead service pipes in conjunction with other construction projects. These projects include water main replacements, emergency repairs and District Department of Transportation (DDOT) projects. **DC Water will contact you if there are any planned projects in your neighborhood.** During these projects, replacement on private property is FREE for all residents—regardless of income. We strongly encourage property owners to take advantage of this opportunity so that we can replace the entire lead pipe at one time.

## Construction Project Full Replacements





# 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**).

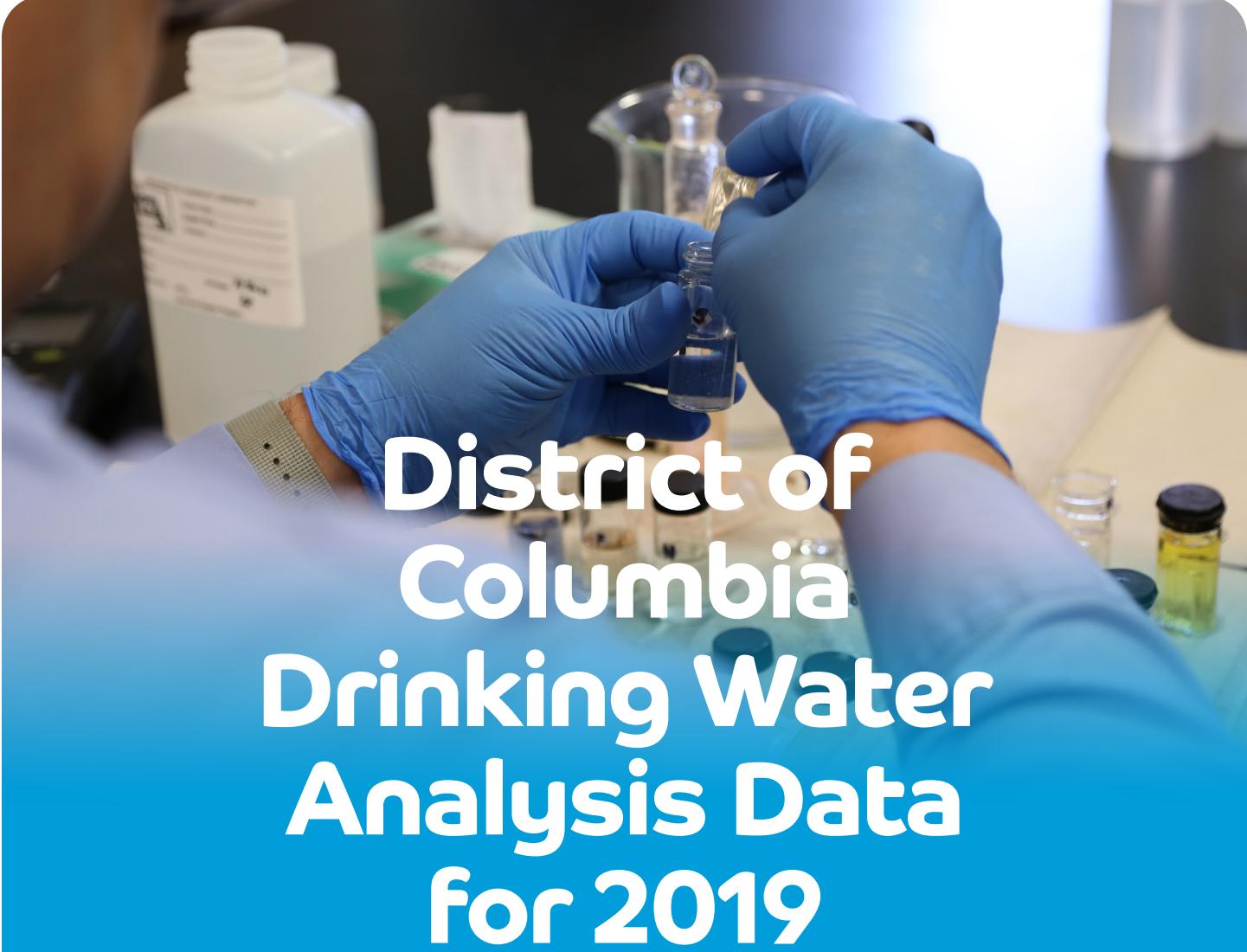
## Water Quality Analysis Data

**Giardia** – The Aqueduct monitored for *Giardia* in the source water (Potomac River) by collecting at the Little Falls and/or Great Falls intakes every month in 2019. *Giardia* cysts were detected in nine samples with concentrations ranging from 0.093 to 0.744 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 2019. *Cryptosporidium* oocysts were detected in three samples with concentrations ranging from 0.095 to 0.279 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.



# District of Columbia Drinking Water Analysis Data for 2019

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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 2019.

The water quality test results indicate that your drinking water complied with all of the EPA's drinking water standards in 2019.

For testing results from previous years, visit [dcwater.com/testresults](http://dcwater.com/testresults).



# Abbreviations & 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<sub>3</sub>** - Calcium carbonate.

**HAA** - Haloacetic Acids

**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. MRDLGs 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<sub>3</sub>-N** - Measurement of ammonia in the form of nitrogen.

**NO<sub>2</sub>-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<sub>4</sub>** - Phosphate

**ppm** - parts per million.

**ppb** - parts per billion.

**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.

# 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) 0.06	Turbidity is often caused by soil runoff
	% of monthly turbidity readings $\leq$ 0.3 NTU	NA	TT = 95% (minimum)	100%	
Total Organic Carbon (TOC)	removal ratio	NA	TT = > 1 (annual average)	1.23 (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	
<b>Inorganic Metals</b>						
Arsenic	ppb	0	10	0.3	ND to 0.3	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	ppm	2	2	0.05	0.03 to 0.05	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

# Regulated Contaminants

continued

WATER ENTERING DC WATER'S DISTRIBUTION SYSTEM							
	Units	EPA Limits		DC Drinking Water		Description / Typical Sources of Contaminants	
		MCLG	MCL	Highest	Range		
<b>Inorganic Anions</b>							
Fluoride	ppm	4.0	4.0	0.8	0.6 to 0.8	Water additive which promotes strong teeth	
Nitrate as Nitrogen	ppm	10	10	3	1 to 3	Runoff from fertilizer use; Erosion of natural deposits	
<b>Synthetic Organic Contaminants – None detected</b>							
<b>Volatile Organic Contaminants – None detected other than TTHMs</b>							
<b>Radionuclides<sup>1</sup></b>							
Combined Radium-226/228	pCi/L	0	5	2	ND to 2	Erosion of natural deposits	
DC WATER'S DISTRIBUTION SYSTEM							
	Units	EPA Limits		DC Drinking Water		Violation	
		MCLG	MCL	Highest	Range		
<b>DISINFECTANTS AND DISINFECTION BYPRODUCTS</b>							
Chlorine	ppm	4 (MRDLG) (annual average)	4 (MRDL) (annual average)	3.2 (Highest running annual average)	0.10 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)	51 (Highest locational running annual average)	11 to 75 (Range of single site results)	No	By-product of drinking water disinfection.

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		
<b>DISINFECTANTS AND DISINFECTION BYPRODUCTS</b>							
Haloacetic Acids (5)	ppb	NA	60 (4-quarter locational running average)	33 (Highest location running annual average)	8 to 42 (Range of single site results)	No	By-product of drinking water disinfection.
<b>LEAD AND COPPER (AT THE CUSTOMER'S TAP)</b>							
	Units	EPA Limits		DC Drinking Water		Exceedance	Description / Typical Sources of Contaminants
		MCLG	Action Level	Samples above AL	90th Percentile		
<b>Lead</b>							
January-June Monitoring Period	ppb	0	15	2 of 109	2	No	Corrosion of household plumbing systems; erosion of natural deposits
July-December Monitoring Period	ppb	0	15	1 of 107	2		
<b>Copper</b>							
January-June Monitoring Period	ppm	1.3	1.3	0 of 109	0.107	No	Corrosion of household plumbing systems; erosion of natural deposits
July-December Monitoring Period	ppm	1.3	1.3	1 of 107	0.104		

# Detected Contaminants

**DETECTED CONTAMINANTS WITHOUT PRIMARY MCLs OR TREATMENT TECHNIQUES ENTERING DC WATER'S DISTRIBUTION SYSTEM**

Parameter	Units	Average	Range
Aluminum	ppb	40	14 to 106
2-Butanone	ppb	ND	ND to 6
Calcium	ppm	38	27 to 51
Chloride	ppm	35	18 to 73
Copper at Point of Entry <sup>2</sup>	ppb	3.7	0.7 to 13
Lithium	ppb	1	1 to 3
Magnesium	ppm	7	3 to 14
Manganese	ppb	0.4	ND to 1.4
Molybdenum	ppb	0.6	ND to 1.0
Nickel	ppb	0.3	ND to 0.8
Orthophosphate (as PO <sub>4</sub> )	ppm	2.4	0.7 to 3.4
Perchlorate	ppb	0.4	0.2 to 0.8
Sodium	ppm	22	13 to 45
Strontium	ppb	158	96 to 252
Sulfate	ppm	42	29 to 63
THAA (HAA5) at Point of Entry <sup>3</sup>	ppb	26	8 to 36
Total Ammonia	ppm	0.7	ND to 1.5
Total Hardness	ppm	126	81 to 176
Total Hardness	grains/gal	7	5 to 10
TTHM at Point of Entry <sup>3</sup>	ppb	27	8 to 63
Vanadium	ppb	ND	ND to 0.7
Zinc	ppb	ND	ND to 1

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



## Download helpful water quality tips.

Download our Household Water Quality Guide or call **202-787-2200** to request a mailed copy.

TapIt Metro D.C. is a network of businesses in the metro region that provide free tap water to refill a reusable bottle. Visit [freetapwater.org](http://freetapwater.org) for a list of partners.

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