2023 Drinking Water Quality Report

SUMMARIZING 2022 WATER QUALITY TEST RESULTS

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The 2023 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.

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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. The meetings are held virtually or 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.

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**
dcwater.com	

ADDITIONAL CONTACTS

US Army Corps of Engineers Washington Aqueduct **nab.usace.army.mil/Missions/Washington-Aqueduct/**	**202-764-2753**
Department of Energy and Environment **doee.dc.gov**	**202-535-2600**
Interstate Commission on the Potomac River Basin **potomacriver.org**	**301-984-1908**
EPA Region 3 Customer Service Representative	**215-814-5122**

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

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

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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.

CEO's Message

Dear Customers,

I am pleased to share DC Water's 2023 Drinking Water Quality Report for your review. The report details the exceptional quality of the District's drinking water and results continue to meet every federal water standard. Please note that this report includes a public notification that water quality monitoring requirements were not met and I encourage you to review that information (Page 19).

In addition to monitoring water quality, and testing for lead contamination, our report also provides a summary of tests conducted to detect per- and polyfluoroalkyl substances (PFAS), or 'forever chemicals,' present in drinking water. DC Water shares the community's concern about these forever chemicals entering our drinking water supply and will continue to monitor and report the results as we receive them.

Over the course of the year, our water monitoring program tested more than 40,000 samples taken from a variety of sources across the District – more than required – to ensure that the water we deliver to local homes and businesses is clean, safe and reliable. I encourage you to explore the report and learn more about water quality in the District and how DC Water acts as a steward of our natural resources and the environment.

The 2023 Drinking Water Quality Report can be found online at: **dcwater.com/waterreport**. You can also call **(202) 787-2200** to request a mailed copy of the report.

Best regards,

David L. Gadis
Chief Executive Officer

"In addition to monitoring water quality, and testing for lead contamination, our report also provides a summary of tests conducted to detect per- and polyfluoroalkyl substances (PFAS), or 'forever chemicals,' present in drinking water."

– DAVID L. GADIS
CHIEF EXECUTIVE OFFICER

Your Drinking Water Source

Where does our drinking water come from?

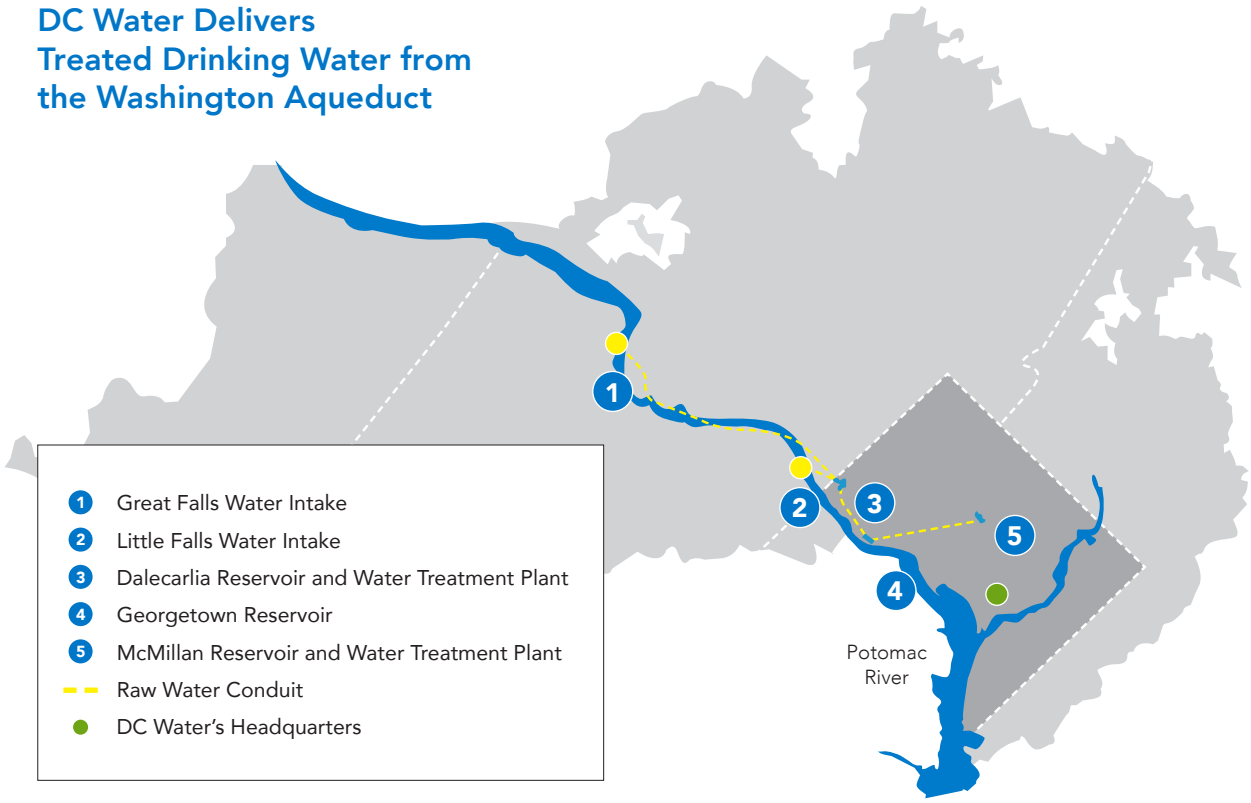
The District of Columbia's drinking water comes from the Potomac River. The Washington Aqueduct (Aqueduct) withdraws about 140 million gallons of water each day from intakes at Great Falls and Little Falls.

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.

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**.

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 95 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 25,000 tests from 7,500 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 →

From Treatment to Tap

continued

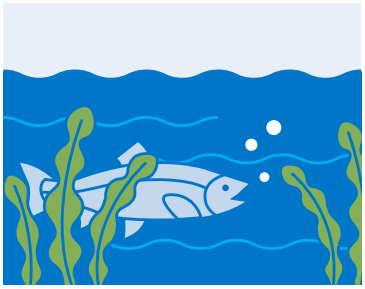
"contaminant" as meaning any physical, chemical, biological, or radiological substance or matter in water. Therefore, the law defines "contaminant" very broadly as being anything other than water molecules. Even beneficial compounds like fluoride, essential nutrients, and naturally-occurring minerals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

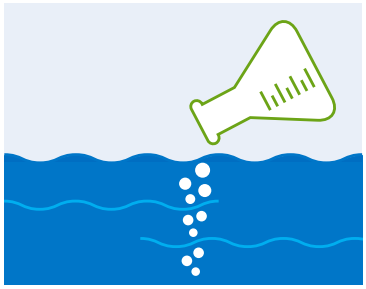
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling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

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

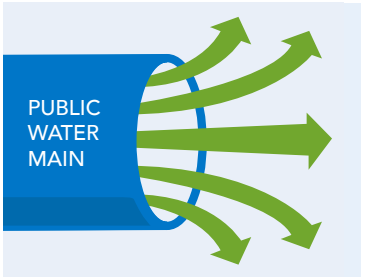
The Washington Aqueduct, DC Water and Residents Work Together to Ensure Water Quality



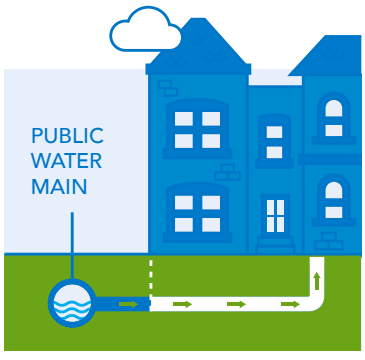
1. Drinking water is drawn from the Potomac River by the Washington Aqueduct.



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

Protecting the Potomac →


Great Falls

Protecting the Potomac continued


Georgetown

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.

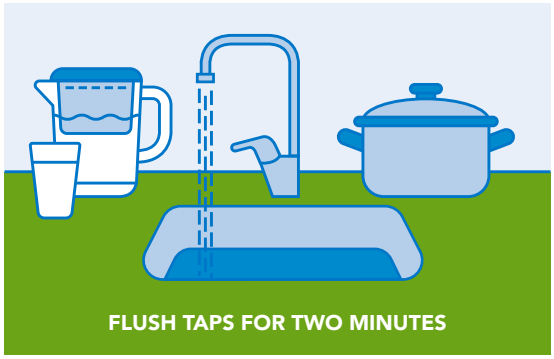
- Prevent litter and pick up pet waste.
- Use only enough pesticides, landscaping chemicals, and fertilizer as necessary. Excess garden and lawn-care materials wash into and pollute waterways during rainfall.
- Consider using Bloom—a safe, Class-A soil conditioner for your garden (**bloomsoil.com**).
- 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 **311**.
- 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

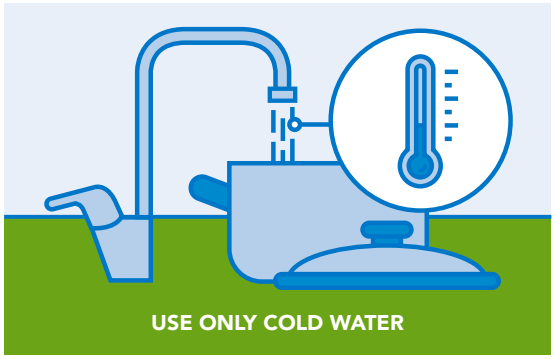
Keeping Tap Water Fresh at Home

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**.

Household Water Quality Tips

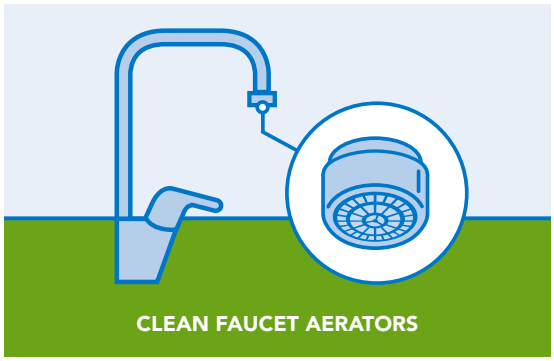


1. **Flush cold taps until you feel a temperature change and continue flushing for two additional minutes** before using water for drinking and cooking when household water has not been used for several hours. When water sits in your pipes for long periods of time, water quality can degrade.



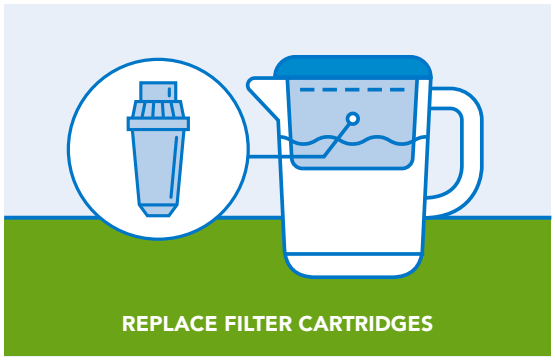
2. **Use only cold water** for drinking and cooking.

   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.

Lead in Drinking Water

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults.

How does lead get into water?

Lead pipe in the individual service lines to the house and lead solder used to join copper pipes prior to 1987 are the significant contributors to lead in drinking water. Galvanized iron pipe downstream of lead pipe attracted lead over time and is also a source of lead. Water comes in contact with these lead sources as it travels through your service line and indoor plumbing. As the water sits in the pipe when not in use, the lead can release into the water. Lead particles inside plumbing can also release sporadically into the water and can accumulate on faucet aerator screens.

Lead in Drinking Water →

Lead in Drinking Water continued

LEAD FREE DC

How can I get rid of lead?

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

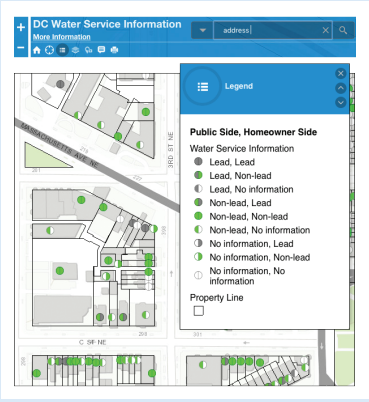
1. Check DC Water's interactive map to identify the material of your service line. This information is based on available historic records and may not be up to date. (**dcwater.com/servicemap**)

2. Identify your pipe material by checking your household water service connection inside the home, typically located in the basement. A helpful guide and videos are posted at **dcwater.com/lead**.

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

4. 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 multifamily residences as well as commercial customers. These tests can indicate the presence of lead in the service line or household plumbing. (**dcwater.com/leadtest**)

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

Lead in Drinking Water →

Lead in Drinking Water continued

LEAD FREE DC

How can I reduce my risk of lead exposure?

If you have lead pipes, fixtures, or are unsure about the pipe 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**).

How can DC Water help replace lead service pipes?

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. For more information on these programs, visit **dcwater.com/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.

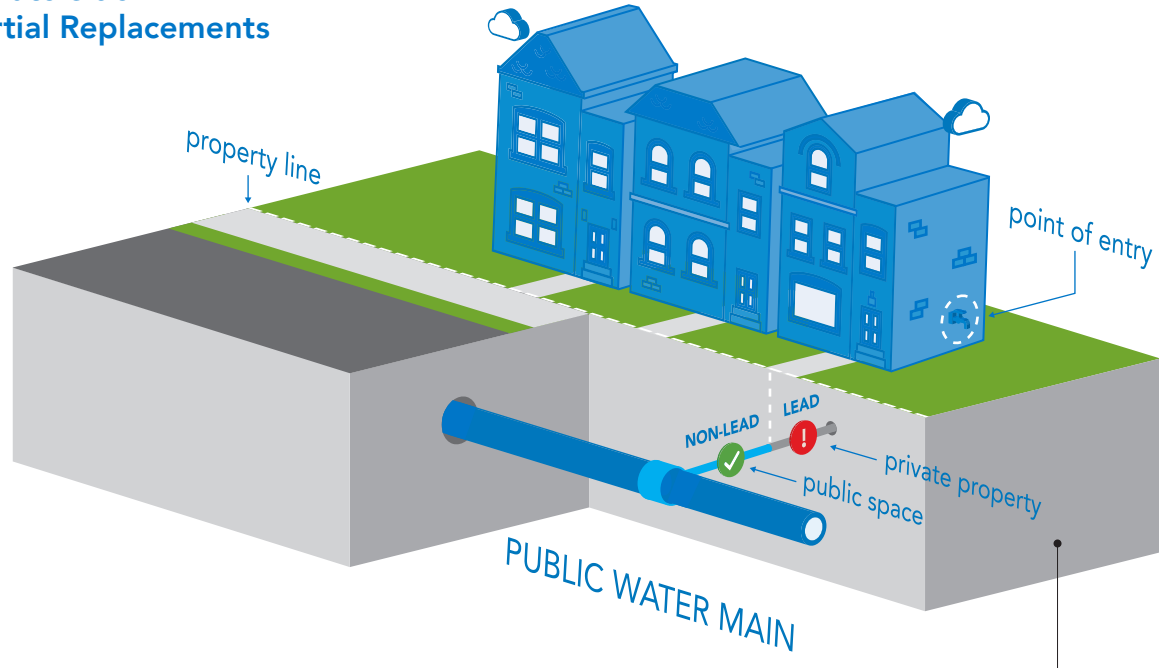
Lead in Drinking Water continued

LEAD FREE DC

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**. All homeowners are eligible for a 50% discount, up to $2,500. Some residents will qualify for 100% coverage depending on household size and income. Property owners can visit **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).

Private-side Partial Replacements



If only the portion on private property is lead, the District will pay for 50% or 100% of private-side costs.

Lead in Drinking Water →

Lead in Drinking Water continued

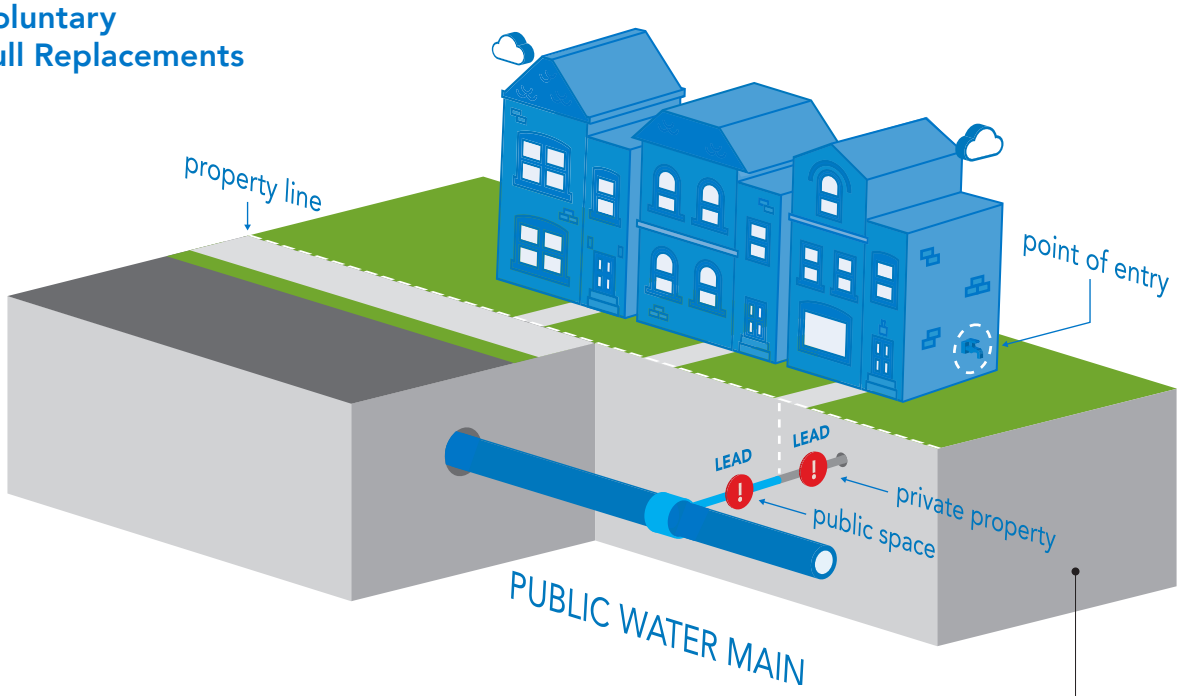
LEAD FREE DC

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** or email **lead@dcwater.com**.

Voluntary Full Replacements



If both portions are lead, and NO work is planned by DC Water, the homeowner pays for private-side costs.

Lead in Drinking Water →

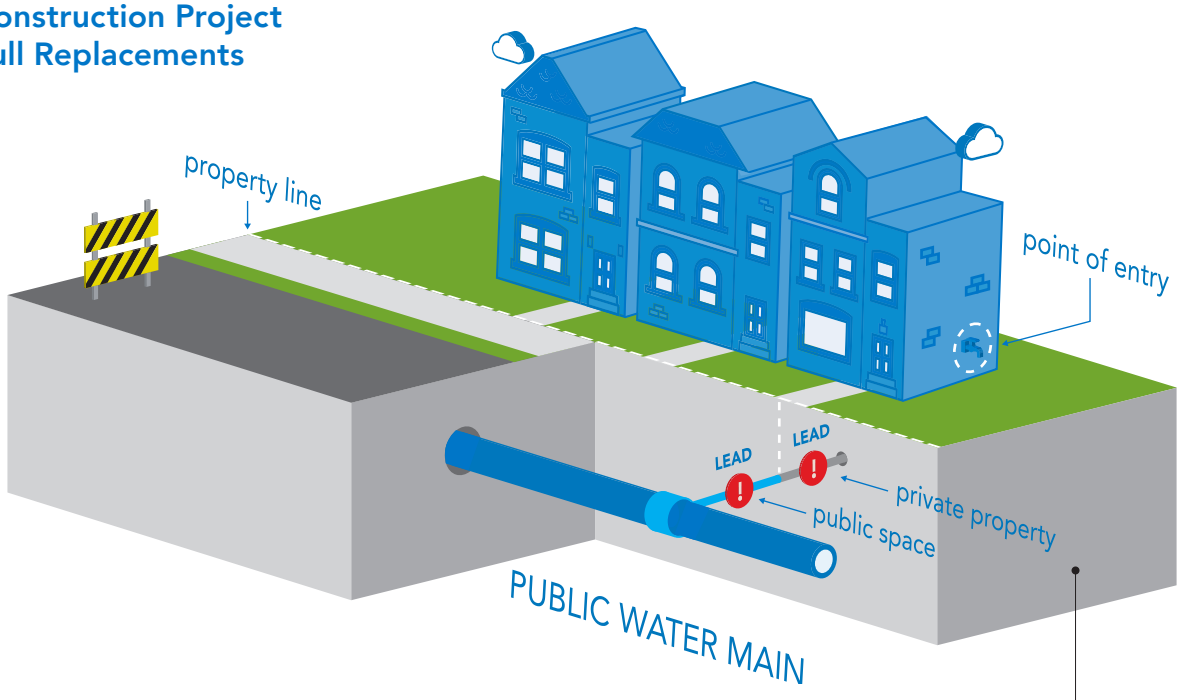
Lead in Drinking Water continued

LEAD FREE DC

Construction Project Full Replacements

Each year, DC Water replaces lead service pipes in conjunction with other construction projects. These projects include water main replacements, by-block service line 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



If DC Water is replacing or repairing the public side, then the lead pipe on the private side will be paid 100% by the District.

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) quarterly in 2022. Giardia cysts were detected in two samples collected in January and October with concentrations ranging from 0.381 to 0.455 cysts per liter.

Cryptosporidium – The Aqueduct monitored for *Cryptosporidium* in the source water (Potomac River) quarterly in 2022. *Cryptosporidium* oocysts were detected in two samples collected in January and October with concentrations ranging from 0.0909 to 0.0952 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.

Per- and polyfluoroalkyl substances (PFAS) compounds – The Aqueduct conducted a proactive sampling event on October 18, 2022, to monitor for per- and polyfluoroalkyl substances (PFAS) compounds in finished water from its two treatment plants using U.S. Environmental Protection Agency (EPA)-approved methodologies to assess concentrations ahead of forthcoming EPA-proposed regulations (**www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas**). DC Water will continue voluntary quarterly monitoring in 2023 and conduct the Fifth Unregulated Contaminant Monitoring Rule required monitoring in 2024. The Aqueduct October 2022 data are summarized on page 22. DC Water also summarized data from other regional entities that use the Potomac River and therefore are likely representative of the District of Columbia's drinking water (**www.dcwater.com/pfas-and-drinking-water**).

Water Quality Monitoring Violation

MONITORING REQUIREMENTS NOT MET

On February 13, 2023, we became aware that our system failed to collect the minimum number of drinking water samples in December 2022 and January 2023 due to alleged falsification of samples collected by the sample collector. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

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 our drinking water meets health standards. During December 2022 and January 2023 we did not complete all testing for coliform and chlorine residual and therefore cannot be sure of the quality of your drinking water during that time.

We are required to collect at least 240 samples each month and test for total coliform and chlorine residual. In February, we became aware that some samples collected in November and December 2022 and January and February 2023 might not have been collected and reported correctly. DC Water requested and received invalidation from EPA for 14 samples collected in December and 24 samples collected in January. Removing the samples resulted in a total of 235 valid samples collected in December 2022 and 234 samples collected in January 2023, both below the minimum of 240 samples. DC Water replaced the improper samples collected in February 2023 and maintained compliance with EPA's monitoring requirements.

What should I do?
There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

What is being done?
DC Water updated its supervisory operating procedures and improved routine audits for tracking vehicles and field reports.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

District of Columbia Drinking Water Analysis Data for 2022

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 from the Potomac River or finished water for the District of Columbia.

The water quality test results for the samples collected indicate that your drinking water complied with all of the EPA's drinking water standards in 2022.

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

dc water is life®

Abbreviations & Definitions

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

HAA - Haloacetic Acid.

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

MRDL (Maximum Residual Disinfectant Level) - The highest level of a disinfectant that is 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.

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.

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

TTHMs - Total Trihalomethanes.

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.

DISTRICT OF COLUMBIA DRINKING WATER ANALYSIS DATA FOR 2022

Per- and Polyfluoroalkyl Substances (PFAS)

TEST RESULTS OF WASHINGTON AQUEDUCT OCTOBER 2022 TREATED WATER SAMPLES (MEASURED AS PARTS PER TRILLION – PPT)					
Chemical Group	Average	Range	Method Reporting Limit	EPA's Proposed Maximum Contaminant Level	EPA's 2022 Health Advisory Level
Perfluorooctanesulfonic acid (PFOS)	1.9 ppt	Non-detect to 2.9 ppt	2.0 ppt	4.0 ppt[1]	0.02 ppt (interim)
Perfluorooctanoic acid (PFOA)	2.4 ppt	2.2 to 2.5 ppt	2.0 ppt	4.0 ppt[1]	0.004 ppt (interim)
Perfluorobutanesulfonic acid (PFBS)	2.7 ppt	2.4 to 3.0 ppt	2.0 ppt	Hazard Index[2] of 1.0	2,000 ppt (final)
Hexafluoropropylene Oxide (HFPO) Dimer Acid and its Ammonium Salt (GenX)	Non-detect	Non-detect	2.0 ppt		10 ppt (final)

1 - Parts per trillion
2 - The Hazard Index is a tool used to evaluate potential health risks from exposure to chemical mixtures. The hazard index for PFAS is the combination of Perfluorononanoic acid (PFNA), Perfluorobutanesulfonic acid (PFBS), Hexafluoropropylene Oxide (HFPO) Dimer Acid and its Ammonium Salt (GenX) ratios of concentration in the sample to the level determined not to cause health effects and is 1.0.

Regulated Contaminants →

DISTRICT OF COLUMBIA DRINKING WATER ANALYSIS DATA FOR 2022

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) 0.19	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)	1.24 (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
Barium	ppm	2	2	0.05	0.03 to 0.05	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	2	0.2 to 2	Runoff from fertilizer use; Erosion of natural deposits

Regulated Contaminants →

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	
Synthetic Organics						
Atrazine	ppb	3	3	0.2	ND to 0.2	Herbicide runoff
Volatile Organic Contaminants – None detected other than trihalomethanes as shown below						
Radionuclides[1]						
Beta/photon emitters	pCi/L	0	50	4	ND to 4	Erosion of natural deposits

DC WATER'S DISTRIBUTION SYSTEM							
	Units	EPA Limits		Running Annual Average	Range	Violation	Description / Typical Sources of Contaminants
		MCLG	MCL				
Disinfectants and Disinfection Byproducts							
Chlorine	ppm	4 (MRDLG) (annual average)	4 (MRDL) (annual average)	3.0 (Highest running annual average)	0.2 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 (TTHMs)	ppb	NA	80 (4-quarter locational running average)	48 (Highest locational running annual average)	15 to 71 (Range of single site results)	No	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	ppb	NA	60 (4-quarter locational running average)	44 (Highest location running annual average)	15 to 62 (Range of single site results)	No	By-product of drinking water disinfection.

1 - Triennial radionuclide monitoring was performed in 2020.

Regulated Contaminants →

Regulated Contaminants continued

LEAD AND COPPER (AT THE CUSTOMER'S TAP)							
	Units	EPA Limits		DC Drinking Water		Violation	Description / Typical Sources of Contaminants
		MCLG	Action Level	Samples above AL	90th Percentile		
Lead							
January-June Monitoring Period	ppb	0	15	1 of 117	2	No	Corrosion of household plumbing systems; erosion of natural deposits
July-December Monitoring Period	ppb	0	15	0 of 108	2		
Copper							
January-June Monitoring Period	ppm	1.3	1.3	0 of 117	0.103	No	Corrosion of household plumbing systems; erosion of natural deposits
July-December Monitoring Period	ppm	1.3	1.3	0 of 108	0.091		

Regulated Contaminants →

DISTRICT OF COLUMBIA DRINKING WATER ANALYSIS DATA FOR 2022

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 95
Calcium	ppm	36	21 to 51
Chloride	ppm	39	17 to 98
Iron	ppb	ND	ND to 40
Lithium	ppb	2	1 to 3
Magnesium	ppm	8	5 to 11
Manganese	ppb	0.5	ND to 1
Metolachlor	ppb	0.1	ND to 0.2
Molybdenum	ppb	ND	ND to 0.9
Nickel	ppb	0.3	ND to 0.7
Orthophosphate (as PO_4)	ppm	2.5	1.9 to 3.7
Perchlorate	ppb	0.3	0.2 to 0.4
Potassium	ppm	2.8	2.7 to 2.8
Sodium	ppm	24	17 to 48
Strontium	ppb	185	132 to 257
Sulfate	ppm	42	31 to 56
HAA5 at Point of Entry[1]	ppb	30	16 to 41
Total Ammonia	ppm	0.8	ND to 1
Total Hardness	ppm	123	83 to 173
Total Hardness	grains/gal	7	5 to 10
TTHM at Point of Entry[1]	ppb	39	12 to 67
Vanadium	ppb	ND	ND to 1
Zinc	ppb	ND	ND to 2

1 - 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** for a list of partners.

Find free tap water on the go!

Want to lower your water bill?

Visit **dcwater.com/customer-assistance**. DC Water, in partnership with District Government and Mayor Bowser, has expanded water and sewer bill discounts and relief programs to help non-profits and low-to-moderate income residents.

DEPARTMENT OF **ENERGY & ENVIRONMENT**

GOVERNMENT OF THE DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR

dc water is life®

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
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