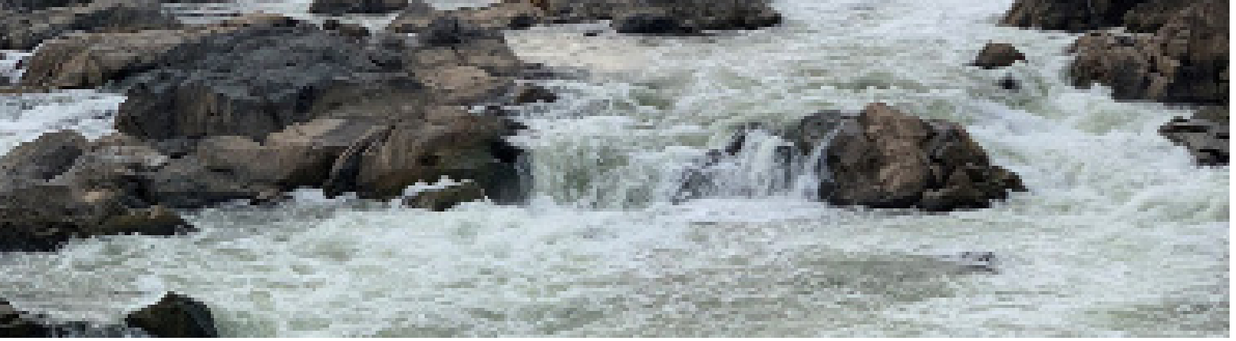
102+ years without a drinking water quality violation.

Water Quality Report

2020

WSSCWATER
DELIVERING THE ESSENTIAL



Content

This report contains very important information about your drinking water. Please find someone to translate it for you, or speak to someone who understands.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。

Tài liệu này có tin tức quan trọng về nước uống của quý vị. Hãy nhờ người dịch cho quý vị, hoặc hỏi người nào hiểu tài liệu này.

500,000
Laboratory tests per year

3 reservoirs

162,000,000
gallons per day
delivered to
1.8 million
residents

Our drinking water system spans over
5,800+ miles

Est. 1918
102 years & counting!
No drinking water quality violations…ever.

2 Water Filtration Plants

60 Tanks

Average daily consumption of
55 gallons
per person per day

WSSC Water has
17,000
solar panels

Using wind and solar energy to reduce our carbon footprint

Our wastewater system spans over
5,600+ miles

43,000+ FIRE HYDRANTS MAINTAINED
FIRE PROTECTION

6 Water Resource Recovery Facilities

55 pumping stations

Delivering the Essential

Dear WSSC Water Customer,

One year ago, we were in the early stages of the COVID-19 pandemic. Who knew we'd still be grappling with this global health and economic crisis 12 months later? Yet the good news is this: we never once failed in our mission to deliver safe, clean and reliable water to your tap 24/7/365.

That's because we're committed to delivering the essential all day, every day. It's a job all of us at WSSC Water take seriously. And it's even more crucial than ever during this public health crisis.

This water quality report is the proof behind our promise. I assure you that we are 100 percent focused on keeping your water safe and clean, always. In these pages, you'll meet some of our many employees – H_2O heroes, as we like to call them – who used their ingenuity and creativity to keep our water flowing to you without pause. Their commitment to you, our customers, during a year unlike any other is one of the many reasons I take great pride in leading this organization.

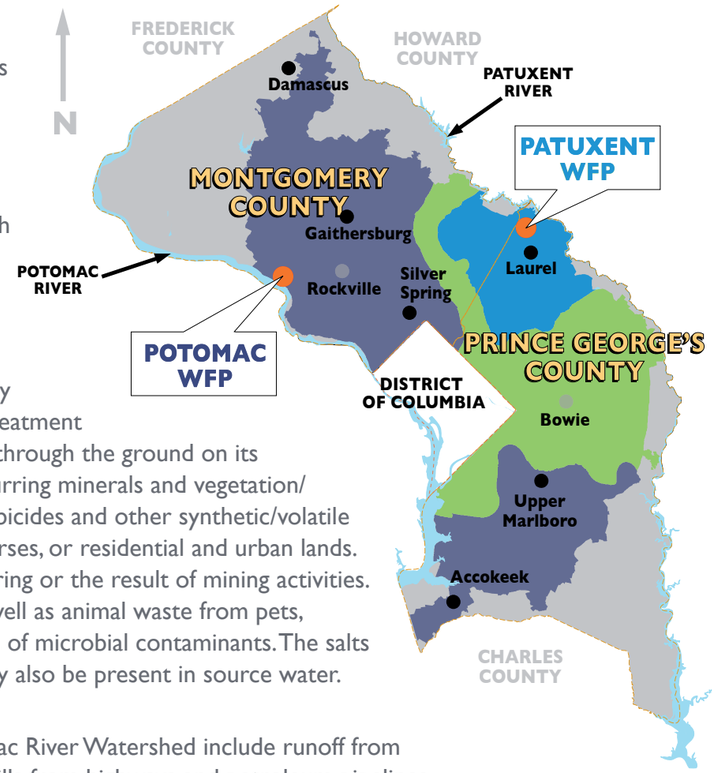
Thank you for entrusting us to deliver safe, seamless, satisfying water services to your home or business. You're not just our customers, you're our neighbors, too. And we are proud to meet your clean-water needs.

Sincerely,

Carla A. Reid
General Manager and CEO

Where Your Water Comes From

The Patuxent and Potomac rivers are the sources of all the water we filter and process. The Patuxent Water Filtration Plant (WFP) produces approximately 40 million gallons per day (MGD) and the Potomac WFP produces 123 MGD. The map shows the approximate service areas of both plants.



Starting at the Source

Source water from rivers and reservoirs generally picks up contaminants before it reaches water treatment plants. As water travels over the land surface or through the ground on its way to the water body, it dissolves naturally occurring minerals and vegetation/organic matter. It also can pick up pesticides, herbicides and other synthetic/volatile organic chemicals from agricultural land, golf courses, or residential and urban lands. Radioactive contaminants can be naturally occurring or the result of mining activities. Sewage treatment plants and septic systems, as well as animal waste from pets, agricultural livestock and wildlife, may be sources of microbial contaminants. The salts and byproducts from winter road treatments may also be present in source water.

Potential sources of contamination in the Potomac River Watershed include runoff from urban and agricultural land uses, and potential spills from highways and petroleum pipelines. Contaminants of particular concern include natural organic matter and disinfection byproduct (DBP) precursors, pathogenic microorganisms (*Cryptosporidium*, *Giardia*, fecal coliform), taste and odor-causing compounds, ammonia, manganese, sodium and chloride from winter salt application, sediment/turbidity and algae.

Potential sources of contamination in the Patuxent Reservoirs Watershed include transportation, agriculture, onsite septic systems, developed areas, and minor permitted discharges. Phosphorus runoff from urban/suburban and agricultural land uses is the primary contaminant of concern for this watershed. Sediment/turbidity, DBP precursors, iron, manganese, sodium and chloride from winter salt application, and pathogenic microorganisms are also concerns.

WSSC Water works with local agencies to protect the Potomac and Patuxent drinking water supplies, playing key roles in the Potomac River Basin Drinking Water Source Protection Partnership and the Patuxent Reservoirs Watershed Protection Group. Partnering with customers and neighbors is crucial to our efforts. If you are interested in learning more about how you can protect your drinking water supplies, please contact us at 301-206-8100.

What's in Your Water
And What's Not

Our Drinking Water is Safe from PFAS

WSSC Water tests your water for the presence of Per- and Polyfluoroalkyl Substances (PFAS) at our Potomac and Patuxent water filtration plants. These two plants provide drinking water to 1.8 million residents in Montgomery and Prince George's counties. This proactive measure goes above and beyond federal and state requirements. WSSC Water tests quarterly for 18 different PFAS compounds using a new analytical method developed and approved by the U.S. Environmental Protection Agency (EPA). Recent test results confirm that your drinking water is safe from PFAS.

Learn more about PFAS at wsscwater.com/pfas.

Information on *Cryptosporidium*

Found in surface water throughout the U.S., *Cryptosporidium* is a microbial pathogen that must be ingested to cause disease. It may spread through means other than drinking water. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection whose symptoms include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks, but immuno-compromised adults, infants, small children and the elderly are at greater risk of developing a life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to avoid infection.

WSSC Water monitored *Cryptosporidium* for two years (March 2015 through February 2017) and the results show our source water is not affected. As an extra precaution, we have installed Ultraviolet (UV) disinfection at both the Potomac and Patuxent water filtration plants to provide another barrier of protection.

Contaminants and Health Risks

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

An Informational Statement from EPA on Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. WSSC Water is responsible for providing high quality drinking water but cannot control the variety of materials used in home/building 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 two 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.

WSSC Water completed its latest triennial Lead and Copper Rule tap sampling in 2020. Ninety percent of the homes we tested had lead levels less than the analytical reporting limit of 1.0 parts per billion (ppb) and well below the EPA's Action Level of 15 ppb. Information about WSSC Water lead prevention methods can be found at wsscwater.com/lead.

Does WSSC Water Have Any Lead in its Pipes?

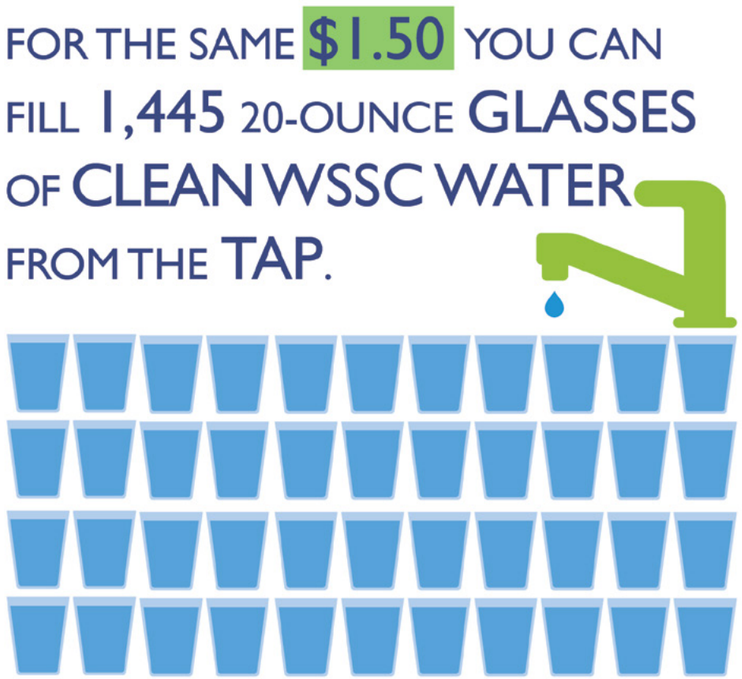
No. In 2005, WSSC Water conducted an aggressive search to find and replace any lead pipes in its distribution system. These pipes are on public property, owned and maintained by WSSC Water.

Ensuring Your Water is Safe...and Affordable

Your Water is Safe from COVID-19

According to the CDC, the COVID-19 virus has not been found in drinking water.
Both of our drinking water filtration plants have recently undergone multi-million-dollar upgrades. Viruses, including COVID-19, cannot survive our state-of-the-art treatment process, which includes filtration, chlorination and UV disinfection. You do not need to spend your hard-earned money on bottled water. Our drinking water continues to undergo rigorous water quality testing, which is far more stringent than for bottled water.

Bottled Water Breaks the Bank



Harmful Algal Blooms

Our drinking water reservoirs contain microscopic organisms known as Cyanobacteria (blue-green algae). They usually multiply and bloom when the water is warm, stagnant and rich in phosphorus and nitrogen from things like fertilizer runoff.

When these blooms occur, usually in the hottest months – between July and October in our region – they can sometimes create toxin levels that are dangerous to people, aquatic life and the environment.

It is important to note, WSSC Water's drinking water is not affected and continues to meet all Safe Drinking Water Act standards. As a precaution, WSSC Water closely monitors water quality conditions at its Patuxent Water Filtration Plant and posts warning signs along the watershed when concentrations of blue-green algae are high.

Learn more at wsscwater.com/hab.

Be Saltwise in Winter

We all know that salt is effective in melting snow and ice. We also know that what happens on land impacts our waterways. But what you might not know is that once salt enters our drinking water sources – the Potomac and Patuxent rivers – we cannot remove it during the water filtration process.

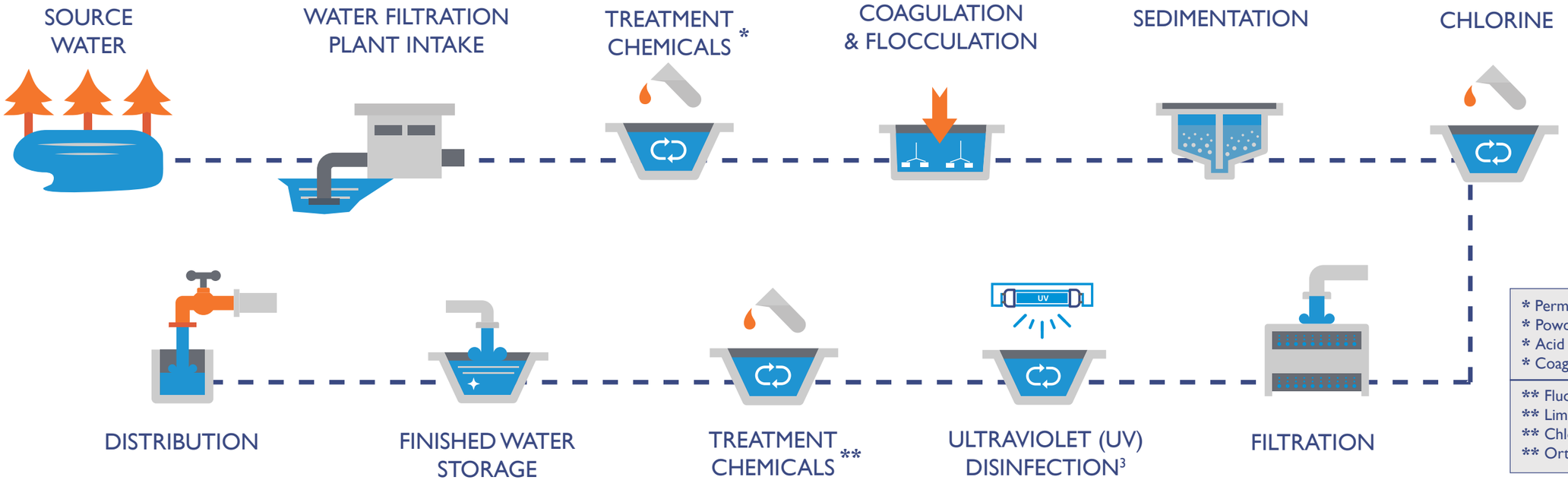
Salt levels in the Potomac and Patuxent rivers have more than doubled in the past 30 years. Additionally, salt is corrosive and will slowly wear away our water mains, leading to water main breaks and discolored water issues for our customers.

Please do your part to limit salt use in the winter.

More information can be found at wsscwater.com/saltwise.

Drinking Water Filtration Process

Here you see the entirety of the water filtration process from source to tap



How We Sample and Test Your Water

Testing is a vital part of our overall water treatment process. Beyond meeting EPA standards, our testing is just one more step in ensuring our water is always safe, clean and satisfying.

Water quality is our top priority. That's why we test water quality at the reservoir, in the rivers near the point where water enters our filtration system, and throughout our water distribution system.

And at our Consolidated Laboratory, we have chemists, lab analysts and microbiologists who conduct 500,000 laboratory tests on our water every year. They collect samples from both of our water filtration plants and from 88 locations throughout our service area. Our rigorous testing protocols work. Once again, we are proud to report that we have never had a drinking water quality violation in our history.

Notice of Availability of Unregulated Contaminant Monitoring Data

Testing is an ongoing process at WSSC Water. Part of that testing includes looking at contaminants not currently listed under those required for federal and state review.

As part of the fourth Unregulated Contaminant Monitoring Rule (UCMR4) program, WSSC Water collected samples quarterly from our source and finished water from both of our water filtration plants. Certain contaminants were also monitored at 16 distribution system sites representing the WSSC Water distribution system. In addition to quarterly samples, cyanotoxin samples were collected twice a month during active algae growth season, beginning in July and ending in October.

In accordance with the requirements of Public Utilities Article 28-301(b)(2), WSSC Water will continue to monitor unregulated contaminants under UCMR4 at the same frequency until the next cycle of federal UCMR monitoring begins. The detected contaminants of the UCMR4 sampling are listed in this report.

The EPA has not established maximum contaminant levels (MCL) for these unregulated contaminants, and the human health effects of these contaminants at the levels they were found is unclear. If you are interested in learning more about the results, please contact us at 301-206-4002 or visit wsscwater.com/ucmr4.

More information on UCMR4 is also available at the EPA's website: epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule.

2020 Water Quality Results

				Patuxent Tap		Potomac Tap			
Detected Substance	**Units**	**MCL**	**MCLG**	**Level Found**	**Range**	**Level Found**	**Range**	**Violation**	**Major Source in Drinking Water**
Barium	mg/L	2	2	0.03	0.02-0.03	0.04	0.03-0.04	No	Discharge of drilling wastes & metal refineries; erosion of natural deposits
Fluoride	mg/L	4	4	0.7	0.4-0.7	1.0	0.6-1.0	No	Water additive, which promotes strong teeth; erosion of natural deposits
Nitrate	mg/L	10	10	2.0	0.6-2.0	2.0	0.9-2.0	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Turbidity	NTU	TT=1 NTU	n/a	0.02	0.02-0.12 [1]	0.03	0.02-0.16 [1]	No	Soil runoff
	% <0.3 NTU	100%	n/a	100%	n/a	% <0.3 NTU	n/a	No	
Residual Chlorine	mg/L	TT>=0.2	n/a	met TT requirements		met TT requirements		No	Water additive used to control microbes
Viruses	n/a	TT=99.99% removal	0	met TT requirements		met TT requirements		No	Human and animal fecal waste
Giardia lamblia	n/a	TT=99.9% removal	0	met TT requirements		met TT requirements		No	Human and animal fecal waste
Cryptosporidium	n/a	TT=99% removal	0	met TT requirements		met TT requirements		No	Human and animal fecal waste
Total Organic Carbon	n/a	TT	n/a	met TT requirements		met TT requirements		No	Naturally present in the environment
Gross Alpha	pCi/L	15	0	2.2	n/d-2.2	n/d	n/d	No	Erosion of natural deposits
Gross Beta	pCi/L	50 [2]	0	<4	n/d-5.2	<4	n/d-7.7	No	Decay of natural and man-made deposits

Unregulated Substance	**Units**	**MCL**	**MCLG**	**Level Found**	**Range**	**Level Found**	**Range**	**Violation**	**Major Source in Drinking Water**
Manganese [10]	µg/L	n/a	n/a	<0.4	n/d-0.78	17	0.67-63	n/a	Erosion of natural deposits
Sodium	mg/L	n/a	n/a	13	12-14	16	10-20	n/a	
1-butanol [10]	µg/L	n/a	n/a	<2	n/d-2.2	n/d	n/d	n/a	Used as a solvent and food additive

TERMS DEFINED

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 and are non-enforceable public health goals
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
TT - Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water
AL - Action level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow
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 contamination
Turbidity - a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our treatment process

NTU - Nephelometric Turbidity Unit
mg/L - milligrams per liter, equal to parts per million (ppm). The equivalent of one minute in 2 years or one penny in $10,000
µg/L - micrograms per liter, equal to parts per billion (ppb). The equivalent of one minute in 2,000 years or one penny in $10 million
ng/L - nanograms per liter, equal to parts per trillion (ppt). The equivalent of one minute in 2,000,000 years or one penny in $10 billion
pCi/L - picocuries per liter (a measure of radiation)
n/d - not detected
n/a - not applicable
= equals
< less than detected limits
* Based on yearly average except as noted

Water Quality Report Results Continued

				Customer Tap [3]			
Detected Substance	**Units**	**AL**	**MCLG**	**90th Percentile [4]**	**# of Sites above AL**	**Violation**	**Major Source in Drinking Water**
Copper	mg/L	1.3	1.3	0.12	0 of 55 sites	No	Corrosion of household plumbing systems
Lead	µg/L	15	0	<1.0	0 of 55 sites	No	Corrosion of household plumbing systems

				Distribution System			
Detected Substance	**Units**	**MCL**	**MCLG**	**Level Found**	**Range**	**Violation**	**Major Source in Drinking Water**
Total Coliform	% Positive per month	TT	0	0.02	0-0.27	No	Naturally present in the environment
# of *E. coli* Positive Samples	Count	0 [11]	0	0	0-0	No	Human and animal fecal waste
Residual Chlorine	mg/L	4.0 [5]	4.0 [5]	1.3 [6]	0.12-2.4 [7]	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	µg/L	60 [8]	n/a	46 [9]	17-78	No	Byproduct of drinking water chlorination
Total Trihalomethanes	µg/L	80 [8]	n/a	67 [9]	23-111	No	Byproduct of drinking water chlorination
HAA5 [10]	µg/L	n/a	n/a	38	20-73	n/a	Byproduct of drinking water chlorination
HAA6Br [10]	µg/L	n/a	n/a	12	7.6-19	n/a	Byproduct of drinking water chlorination
HAA9 [10]	µg/L	n/a	n/a	49	32-87	n/a	Byproduct of drinking water chlorination

DEFINITIONS

1 - Filtered water, maximum of measurements taken every 15 minutes
2 - EPA considers 50 pCi/L to be the level of concern for beta particles
3 - Most recent required sampling, between June and September 2020
4 - If more than 10% of sites exceed action level, system is required to take additional steps to control corrosiveness of their water
5 - Maximum residual disinfectant level (MRDL), the highest level of a disinfectant allowed in drinking water; based on a running annual average (RAA)
6 - Highest RAA
7 - All samples deemed to have detectable disinfectant residual
8 - Maximum contaminant level based on locational running annual average (LRAA)
9 - Highest LRAA
10 - Unregulated contaminants were monitored in accordance to State of Maryland legislation requring WSSC Water to continue the latest cycle of UCMR. Federally required UCMR4 monitoring ended in 2018. For full results please visit: https://www.wsscwater.com/ucmr4
11 - Routine and repeat samples are total coliform-positive and either *E. coli* positive or system fails to take repeat samples following *E. coli* positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*

Our H_2O Heroes

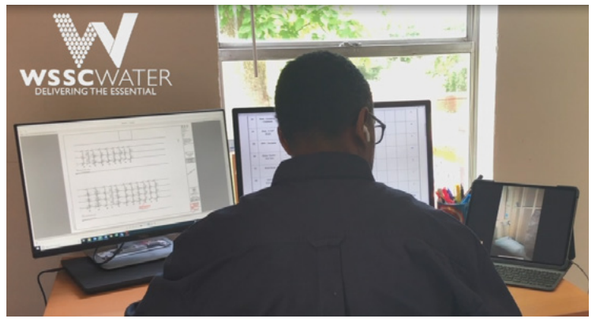
Keeping Safe, Clean Water Flowing to You

When your mission is to deliver life's essential, shutting down is never an option. This past year, under some very challenging circumstances, the men and women of WSSC Water rolled up their sleeves and stepped up when needed most to continue delivering to our customers.

Our H_2O heroes are united in serving our customers every single day. But at the onset of the pandemic, our customer-facing teams had to find creative ways to get their jobs done without risking the lives of our employees and customers.

Virtual Inspections

With social distancing guidelines in place, we suspended all non-emergency, in-home work. Our plumbing inspections staff turned on a dime, using smartphones and tablets to perform virtual inspections when in-person inspections weren't possible due to COVID-19. Between the start of the pandemic and December, the team completed more than 13,000 inspections.



Water Sampling

With so many businesses suddenly closed in March, many of our 88 routine water sampling sites across both counties were no longer accessible. These H_2O heroes wasted no time in figuring out how to swiftly and safely gather samples from alternative sites, including some fire hydrants. Their efforts ensured our 102-year record of no drinking water quality violations continued.

"During this pandemic, we are ahead of schedule thanks to our crews working diligently."

- Technical Contracts Supervisor Gouladral Williams

Pipeline Construction

Our pipeline construction division never missed a beat in making infrastructure repairs. Having less traffic on the roads helped increase their productivity and conducting community meetings virtually kept our customers informed.

Our Response Team

One of the secrets to our success is our COVID-19 Incident Commander Dave McDonough, who helped us navigate this uncharted territory in the most transparent and admirable way. As our director of homeland security, Dave had planned for a potential pandemic, which enabled us to quickly and safely respond to this unprecedented event.

Dave McDonough, pictured top center, hosted bi-weekly, all-employee livestream meetings, featuring our CEO and other senior leaders, to address employee questions and concerns throughout the pandemic.

Delivering the Essential with Support from You

WATER FUND
Sharing the Essential

WSSC Water is here to help with flexible payment plans and financial assistance. Contact us at wsscwater.com/assistance to learn more.

Our WSSC Water Fund helps residential customers in financial need pay their water/sewer bills. Since the pandemic began, 881 households have received $386,000 in assistance from the Water Fund. 100 percent of all donations go directly to those in need.

Customers can make multiple requests for assistance with water/sewer bills, up to $500 per year. To make a tax-deductible donation or to request assistance, go to wsscwater.com/waterfund.

14501 Sweitzer Lane, Laurel, Maryland • wsscwater.com/wqr • 301-206-4001

WSSCVideos WSSCWater WSSCWaterNews WSSCWater