WSSCWATER
DELIVERING THE ESSENTIAL

# 2023 WATER QUALITY REPORT

# TABLE OF CONTENTS

# MESSAGE FROM THE GENERAL MANAGER AND CEO


Dear Valued Customer,

I'm fully immersed in my second year as General Manager and CEO of this nationally recognized water and wastewater utility, and my commitment to provide stellar service to you remains as strong as ever.

Some might call it remarkable that WSSC Water has achieved 106 years without a drinking water quality violation. But in leading and working alongside the exceptional men and women of WSSC Water - we proudly call ourselves Team $H_2O$ - I see the passion and commitment our workforce has toward their work and you, our customers. So, it's no surprise that we continue to deliver high-quality drinking water to the residents and businesses of Montgomery and Prince George's counties and safely return clean water to the environment. However, it is not an easy task.

We are relentless about safety, service, reliability and affordability. We are also laser-focused on integrating diversity, equity, inclusion and environmental justice in all we do. As an anchor institution, we recognize that our work is a building block that uplifts communities, and we are committed to ensuring that a rising tide lifts all boats.

The efforts of Team $H_2O$ are reflected on the pages of this water quality report, which outlines the measures taken to deliver clean water to your homes and businesses 24/7/365. It also details the state and federal regulations we must meet to keep your water safe. That includes the U.S. Environmental Protection Agency's (EPA) proposed regulations addressing emerging contaminants like Per- and Polyfluoroalkyl Substances (PFAS) and ensuring your water is safe from lead and copper.

As this report details, we are proactive about our PFAS testing, and results indicate very low levels of PFAS in our drinking water. Similarly, the results of our latest round of lead and copper testing from homes throughout our service area are well below action levels set by the EPA.

Despite our exceptional track record of water quality excellence, we are not resting on our laurels. Team $H_2O$ remains committed to delivering safe, clean water. Our passion and purpose make that a priority, and we're happy to share it with you.

Yours in service,

Kishia L. Powell
General Manager and CEO

# WHERE YOUR WATER COMES FROM

We draw the water we treat from two sources: the Patuxent and Potomac rivers. On the Patuxent River, we operate and maintain two reservoirs — Triadelphia and T. Howard Duckett. Our Patuxent Water Filtration Plant (WFP) draws water from the Duckett Reservoir and produces approximately 60 million gallons per day (MGD). Our Potomac WFP draws water straight from the Potomac River, producing between 100 and 120 MGD.

**Starting at the Source**
As water travels over the land's surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from human activity and the presence of animals. Contaminants may include the following:

**Microbial contaminants**
Viruses, bacteria and other microbes that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

**Inorganic contaminants**
Salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, mining, farming or winter road treatments.

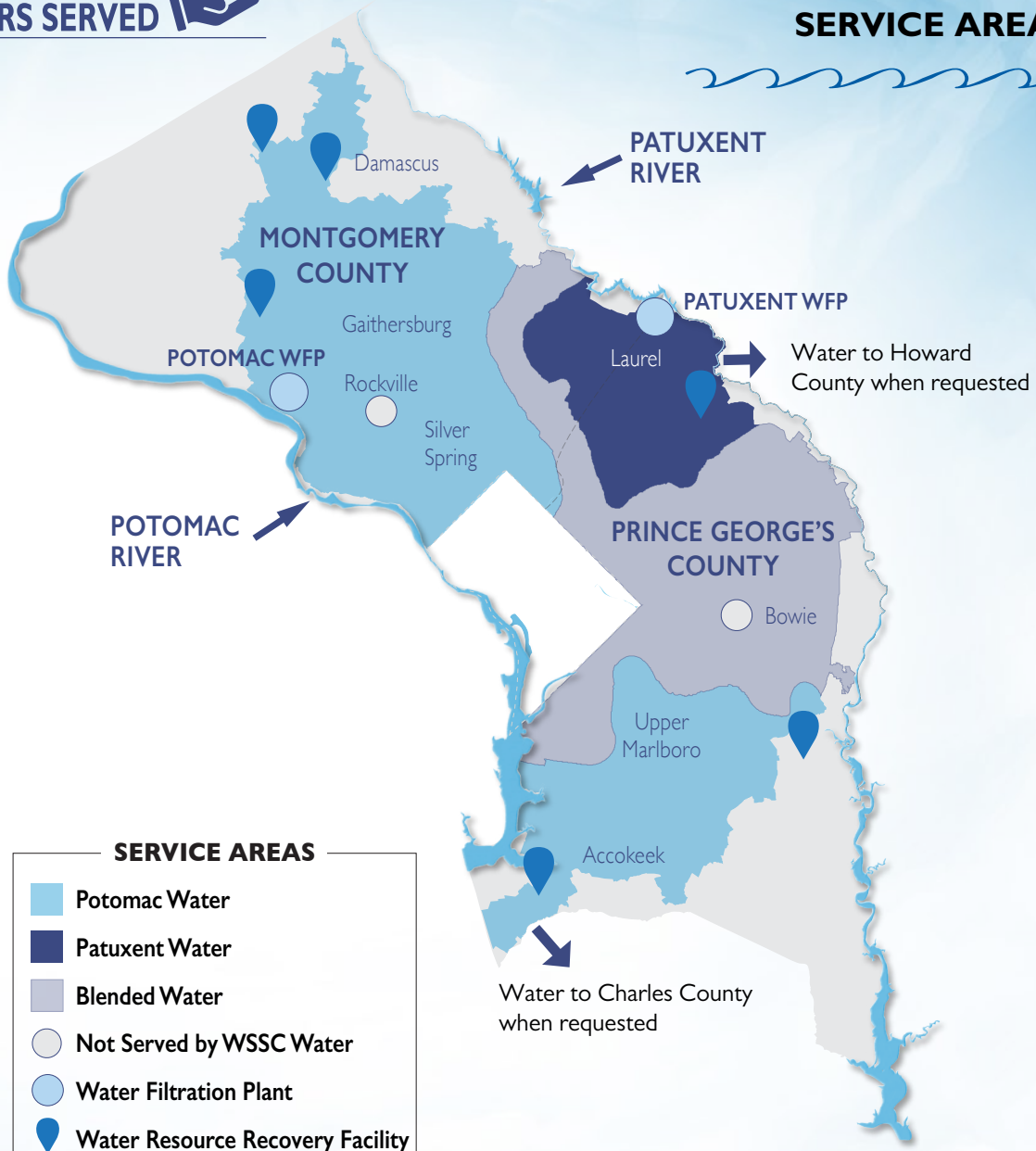
**Pesticides and herbicides**
Chemical substances resulting from a variety of sources, such as agricultural and urban stormwater runoff, golf courses or residential and urban lands/uses.

**Organic chemical contaminants**
Substances including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff and septic systems.

**Radioactive contaminants**
Substances that can be naturally occurring or the result of mining activities.

## 1.9 MILLION CUSTOMERS SERVED

## SERVICE AREA



# IMPACTS ON WATER QUALITY

**KENYA POLLARD**
**Systems Construction Inspector**

## Per-and Polyfluoroalkyl Substances (PFAS)

In January 2020, WSSC Water voluntarily resumed quarterly testing of its water for 18 PFAS compounds at its Potomac and Patuxent water filtration plants, which provide drinking water to 1.9 million residents in Montgomery and Prince George's counties. In September 2022, WSSC Water proactively increased PFAS monitoring from 18 to 29 compounds using the latest EPA testing methods. This proactive measure goes above and beyond federal and state requirements. Test results, which indicate very low levels of PFAS in our drinking water, are posted here. To view the results and learn more about PFAS: wsscwater.com/pfas.

In March 2023, the EPA announced proposed Maximum Contaminant Levels (MCLs) of 4 parts per trillion (ppt) for Perfluorooctanoic Acid (PFOA) and 4 ppt for Perfluorooctane Sulfonic Acid (PFOS), and a Group Hazard Index for four additional PFAS compounds. Future regulations would require additional monitoring as well as certain actions for systems above the MCLs. The EPA scheduled to publish the final MCLs and requirements in 2024. Additional information about PFAS can be found on the MDE website: mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx.

## *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.

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 our 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 healthcare providers.

To ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protections for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. However, the presence of contaminants does not necessarily indicate that water poses a health risk. The EPA/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 the EPA on Lead

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 and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home.

You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, or doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water.

If you are concerned about lead in your water and wish to have your water tested, contact WSSC Water at 301-206-4002. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

## Does WSSC Water Have any Lead in its Pipes?

WSSC Water completed its latest triennial Lead and Copper Rule (LCR) tap sampling in 2023. Ninety percent of the homes we tested had lead levels less than the analytical reporting limit of 2.0 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.

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.

The EPA's new LCR was formally made effective in December 2021. Originally published in 1991 to regulate the amount of lead and copper in drinking water, there have been small updates in the past. This is the first major revision since it was originally published. Per this revision, the initial requirements call for several steps to be completed by October 2024.

For more information visit epa.gov/ground-water-and-drinking-water/review-national-primary-drinking-water-regulation-lead-and-copper.

## Notice of Availability of Unregulated Contaminant Monitoring Data

Our testing includes looking at contaminants not currently listed under those required for federal and state review. As part of the Unregulated Contaminant Monitoring Rule (UCMR) program, we collected quarterly samples from finished water from our water filtration plants.

The detected contaminants of the UCMR5 sampling are listed in this report (page 12). The EPA has not established maximum contaminant levels (MCLs) for these unregulated contaminants, and the human health effects of these contaminants at the levels they were found is unclear. WSSC Water began monitoring under UCMR5 in March 2023.

If you are interested in learning more about the results, contact us at 301-206-4002 or visit wsscwater.com/ucmr5. More information on UCMR5 is also available at the EPA's website: https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule.

## Harmful Algal Blooms (HABs)

July through October, we monitor our drinking water reservoirs for microscopic organisms known as Cyanobacteria (blue-green algae). They usually multiply and bloom when the water is warm, stagnant and rich in phosphorous and nitrogen from things like fertilizer runoff.

These blooms can sometimes create toxin levels that are dangerous to people, pets, aquatic life and the environment. WSSC Water's drinking water is not affected and continues to meet all Safe Drinking Water Act standards. However, as a precaution, we closely monitor water quality conditions at our Patuxent Water Filtration Plant and post warning signs along the watershed when concentrations of the algae are high. Learn more at wsscwater.com/hab.

# HOW AND WHY WE TEST YOUR DRINKING 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 from 88 locations throughout our service area.

At our water quality laboratory, we have chemists, lab analysts and microbiologists who conduct 500,000 laboratory tests on our water every year.

## HERO IN A LAB COAT

### KIMBERLY BRACKETT
**Laboratory Analyst**

She may not be fighting fires or solving crimes, but Laboratory Analyst Kimberly Brackett feels heroic about her work at WSSC Water.

"I see it as similar to the medical field. We're protecting nearly two million customers," Kimberly says of the 500,000 water and wastewater samples they test each year to ensure safe, reliable water flows from your tap.

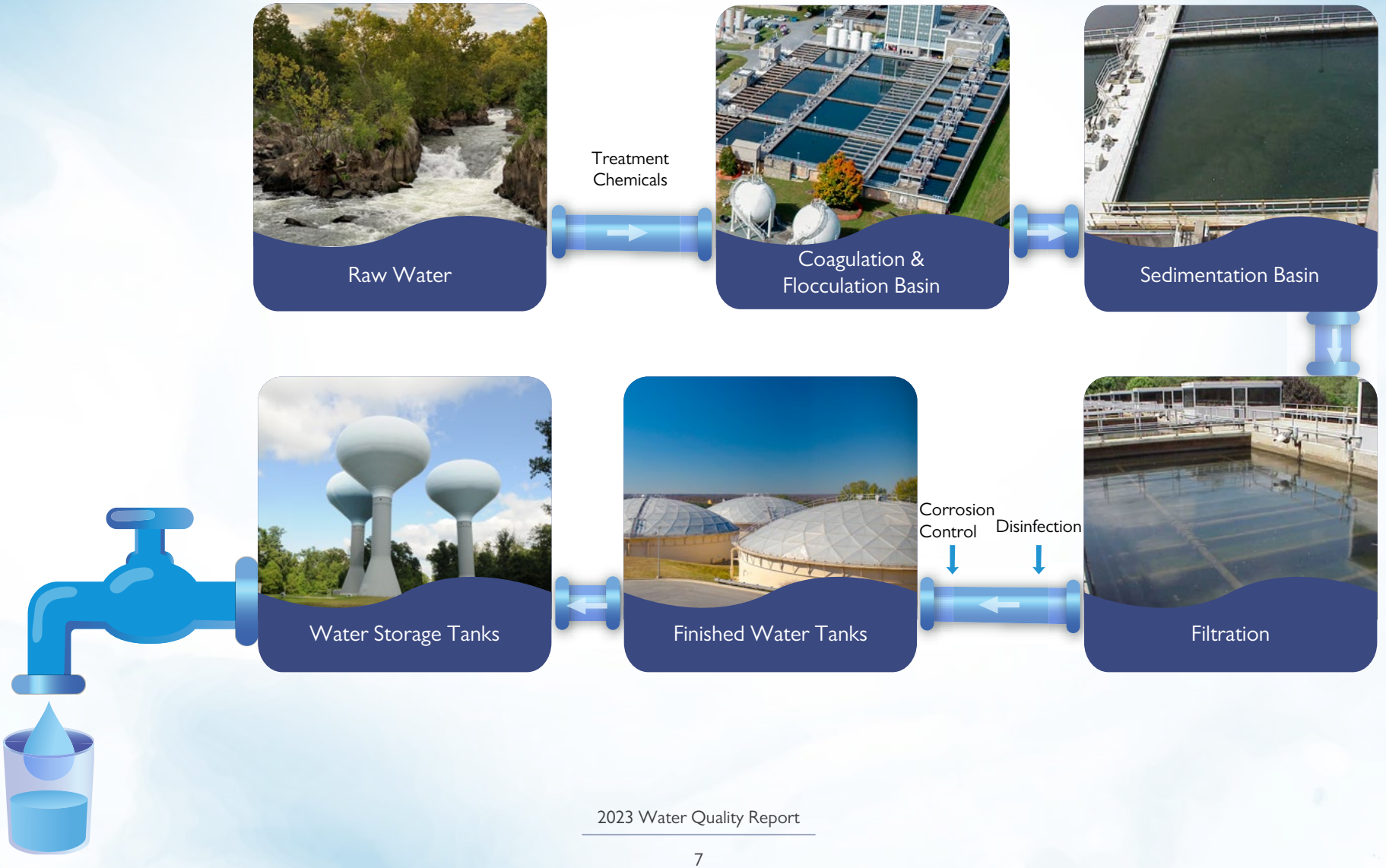
She's also proud to work in a state-of-the-art lab with its highly precise instruments – "some of the best in the field," she adds.

Kimberly's lab career began in 2017 when she landed a summer internship. A then-chemistry student at University of Maryland Baltimore County, she turned that internship into a part-time summer job for three years while in school. She also changed her major to environmental science because she was concerned about the environment and climate change.

The out-of-classroom, hands-on experience made an impact. When a laboratory analyst position opened as she graduated, Kimberly applied for and got the job. Three years later, she's still thrilled to be making a difference. "It's never boring here," she says. "We're always on the go."

## WATER TREATMENT PROCESS

1. **Coagulation/Flocculation** - Raw water is drawn into mixing basins at our filtration plants, where we add alum and polymer. This process causes small particles to stick to one another, forming larger particles.
2. **Sedimentation** - Over time, the now larger particles become heavy enough to settle to the bottom of a basin from which sediment is removed.
3. **Filtration** - The remaining fine particles, along with many microorganisms, are filtered out as water flows through the levels of the filter.
4. **Disinfection and other treatment** - Chlorine is added to disinfect and any pathogens in the water are inactivated with UV light, rendering the microorganisms harmless to humans. Additional chemicals such as orthophosphate, lime and fluoride are also added for corrosion control and dental protection.
5. **Water Storage** - Corrosion control chemicals are added to the finished water, which is sent to elevated tanks for storage and to ensure enough supply is available during high-demand periods. From these tanks, water is sent to customers for drinking, cooking, cleaning and other uses.



# 2023 WATER QUALITY RESULTS

How to Read the Water Quality Data Tables on the Next Four Pages:

The EPA establishes the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The tables show the concentrations of detected substances compared to regulatory limits. The results in the tables were collected during 2023. Typical sources are shown for each contaminant.

## 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 that, if exceeded, triggers treatment or other requirements that 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. The level of sediments suspended in the water.

n/d - not detected

n/a - not applicable

= equals

< less than detected limits

* Based on yearly average except as noted

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 million years or one penny in $10 billion.

pCi/L - picocuries per liter (a measure of radiation).

## 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] - Highest running annual average (RAA).

[6] - All samples deemed to have detectable disinfectant residual.

[7] - Maximum residual disinfectant level (MRDL), the highest level of a disinfectant allowed in drinking water; based on a RAA.

[8] - Highest locational running annual average (LRAA).

[9] - Maximum contaminant level based on LRAA.

[10] - Unregulated contaminants were monitored in accordance to EPA's 5th cycle of Unregulated Contaminant Monitoring Rule (UCMR5). For full results please visit: https://www.wsscwater.com/ucmr5

[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.*

# DETECTED REGULATED CONTAMINANTS

| Substance | Units | Patuxent Tap | | Potomac Tap | | MCL (or TT) | MCLG | Violation | Major Source in Drinking Water |
|---|---|---|---|---|---|---|---|---|---|
| | | Level Found | Range | Level Found | Range | | | | |
| **METALS** | | | | | | | | | |
| Barium | mg/L | 0.03 | 0.02-0.03 | 0.04 | 0.02-0.04 | 2 | 2 | No | Discharge of drilling wastes & metal refineries; erosion of natural deposits |
| **INORGANIC CONTAMINANTS** | | | | | | | | | |
| Fluoride | mg/L | 0.8 | 0.5-0.8 | 0.8 | 0.7-0.8 | 4 | 4 | No | Water additive which promotes strong teeth; erosion of natural deposits |
| Nitrate | mg/L | 1.4 | 0.3-1.4 | 2.3 | 0.2-2.3 | 10 | 10 | No | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| **MICROBIAL CONTAMINANTS** | | | | | | | | | |
| Turbidity | NTU | 0.03 | 0.02-0.09[1] | 0.04 | 0.02-0.31[1] | TT=1 NTU | n/a | No | Soil runoff |
| | % <0.3 NTU | 100% | n/a | 100% | n/a | TT=95% min | n/a | No | |
| Residual chlorine | mg/L | met TT requirements | | met TT requirements | | TT>=0.2 | n/a | No | Water additive used to control microbes |
| Viruses | n/a | met TT requirements | | met TT requirements | | TT=99.99% removal | 0 | No | Human and animal fecal waste |
| *Giardia lamblia* | n/a | met TT requirements | | met TT requirements | | TT=99.9% removal | 0 | No | Human and animal fecal waste |
| *Cryptosporidium* | n/a | met TT requirements | | met TT requirements | | TT=99% removal | 0 | No | Human and animal fecal waste |

# DETECTED REGULATED CONTAMINANTS

| Substance | Units | Patuxent Tap | | Potomac Tap | | MCL (or TT) | MCLG | Violation | Major Source in Drinking Water |
|---|---|---|---|---|---|---|---|---|---|
| | | Level Found | Range | Level Found | Range | | | | |
| **DISINFECTION BYPRODUCT (DBP) PRECURSOR** | | | | | | | | | |
| Total Organic Carbon | n/a | met TT requirements | | met TT requirements | | TT | n/a | No | Naturally present in the environment |
| **RADIOACTIVE CONTAMINANTS** | | | | | | | | | |
| Gross Alpha | pCi/L | n/d | n/d - n/d | 2.1 | n/d - 2.1 | 15 | 0 | No | Erosion of natural deposits |
| Gross Beta | pCi/L | 5.9 | n/d - 5.9 | 5.9 | n/d - 5.9 | $50_2$ | 0 | No | Decay of natural and man-made deposits |
| Radium 228 | pCi/L | 0.3 | n/d - 0.3 | 0.4 | n/d - 0.4 | $5_3$ | 0 3 | No | Erosion of natural deposits |

| Substance | Units | Customer Tap$_3$ | | MCL (or TT or MRDL) | MCLG (or MRDLG) | Violation | Major Source in Drinking Water |
|---|---|---|---|---|---|---|---|
| | | 90$^{th}$ Percentile$_4$ | # of Sites Above AL | | | | |
| **METALS** | | | | | | | |
| Copper | mg/L | 0.12 | 0 of 69 sites | 1.3 | 1.3 | No | Corrosion of household plumbing systems |
| Lead | µg/L | <2.0 | 0 of 69 sites | $15_4$ | 0 | No | Corrosion of household plumbing systems |

# DETECTED REGULATED CONTAMINANTS

| Substance | Units | Distribution System | | MCL (or TT or MRDL) | MCLG (or MRDLG) | Violation | Major Source in Drinking Water |
|---|---|---|---|---|---|---|---|
| | | Level Found* | Range | | | | |
| **BACTERIOLOGICAL CONTAMINANTS** | | | | | | | |
| Total Coliform | % Positive per month | 0.15 | 0 - 0.50 | TT | 0 | No | Naturally present in the environment |
| No. of *E. coli* Positive Samples | Count | 2 | 0 - 1 | 0[11] | 0 | No | Human and animal fecal waste |
| **DISINFECTANT & DBPs** | | | | | | | |
| Residual Chlorine | mg/L | 1.21[5] | 0.09 - 3.0[6] | 4.0[7] | 4.0[7] | No | Water additive used to control microbes |
| Haloacetic Acids (HAA5) | µg/L | 46[8] | 19 - 62 | 60[9] | n/a | No | By-product of drinking water chlorination |
| Total Trihalomethanes (TTHMs) | µg/L | 68[8] | 16 - 104 | 80[9] | n/a | No | By-product of drinking water chlorination |

# DETECTED UNREGULATED CONTAMINANTS

| Substance | Units | Patuxent Tap | | Potomac Tap | | MCL (or TT) | MCLG | Violation | Major Source in Drinking Water |
|---|---|---|---|---|---|---|---|---|---|
| | | Level Found* | Range | Level Found* | Range | | | | |
| **METALS** | | | | | | | | | |
| Sodium | mg/L | 12 | 10 - 13 | 18 | 4 - 28 | n/a | n/a | n/a | |
| **PFAS (Per- and Polyfluoroalkyl Substances)** | | | | | | | | | |
| PFPeA | ng/L | n/d | n/d - n/d | 6.05 | 5.4 - 6.7 | n/a | n/a | n/a | Consumer and industrial products |
| PFHxA | ng/L | n/d | n/d - n/d | 4.65 | 4.5 - 4.8 | n/a | n/a | n/a | Consumer and industrial products |

## THE PROBLEM WITH PFAS

On March 14, 2023, the EPA proposed new regulations impacting six types of PFAS in drinking water. While the measured amount of PFAS in WSSC Water's drinking water is low and complies with these proposed regulatory requirements, additional water treatment may be needed to maintain an adequate margin of safety and manage future compliance. The cost of making treatment changes to meet the new proposed regulations and potential future PFAS rules affecting wastewater products could be substantial.

"We support the EPA's efforts to safeguard public drinking water supplies by addressing emerging contaminants like PFAS compounds," said GM/CEO Kishia L. Powell in her statement on the EPA's proposed regulations. "We don't want these manmade compounds in our drinking water supplies, and if treatment process changes are necessary to meet these new regulations, rest assured, we will make them. But the significant costs of upgrading our facilities should not be passed on to our customers."

WSSC Water filed a lawsuit in August 2023 against nearly 20 companies that knowingly polluted the environment with per- and PFAS, also known as "forever chemicals." The lawsuit, filed in the United States District Court for the District of Maryland (Southern Division), was brought against 3M, Dupont, Chemours and others for manufacturing fire-suppression foams, which contain PFAS, and concealing the toxic nature of the materials from the public.

PFAS are compounds that do not easily break down and end up in drinking water supplies and wastewater. The lawsuit seeks to hold these companies financially responsible for any past, present and future water and wastewater treatment changes as they profited from selling products they knew contained these dangerous substances.

# SAMPLING ISN'T SIMPLE

**BRYAN CRAMPTON**
**Water Quality Specialist**

Bryan routinely goes into the field to test for PFAS in the water distribution system. While he describes his job simply as "putting water in a cup," far more goes into the preparation for PFAS testing.

Samplers, like Bryan, must be perfect in their movements for five to ten minutes while sampling, but also for days in advance. Because PFAS are in so many everyday products, samplers must be cautious to avoid PFAS in their clothing, personal hygiene products, plastic packaging and rain gear, among other things.

"There's a long list of things we cannot do, starting the night before and up until the time we are sampling," says Bryan. "We cannot use shampoo, deodorant or toothpaste because those items contain PFAS. We can't use fabric softener, so I try to avoid it for the week leading up to sampling days. Even our clothing needs to be cotton."

Samplers can't get breakfast on the run like many people do because plastic packaging contains PFAS. Stopping for coffee is a no-no if the cup is plastic. They also can't touch the single-serving pods if making coffee themselves.

Once they collect the sample, they cannot use a clipboard — or a pen with gel ink — to complete the chain-of-command paperwork. Says Bryan, "It has to be a ballpoint pen, so anytime I come across one, I stow it away."

"It's a lot to go through, but I take the job seriously," says Bryan. "I recognize how important this work is to WSSC Water and the public. There are huge consequences if it's not done properly."

So, the next time you reach for a convenient plastic coffee cup or can't find your ballpoint pen, think of Bryan and his colleagues -- and PFAS.

# ADVOCATING FOR FEDERAL FUNDING

In 1977, the federal government invested 65 percent of all capital spending on water infrastructure. Four decades later, that figure is now below 10 percent.

The passage of the **Bipartisan Infrastructure Law** made us all hopeful that the historic funding levels would unlock the ability to ramp up required investments. And it will help. WSSC Water will receive just over $105 million in State/Federal funds in the coming year for several projects.

But the reality is that the single largest-ever investment in water infrastructure in the history of the United States is a drop in the bucket compared to the funding required to meet the infrastructure investment needs of WSSC Water and the entire water sector. Historic decreases in federal funding, coupled with aging infrastructure, climate change, cyber threats and addressing emerging contaminants—like PFAS—widen the funding gap.

The challenge facing the entire water sector is balancing affordability with the need to invest in critical infrastructure. It has become unsustainable to continue raising rates on our customers.

That is why General Manager and CEO Kishia L. Powell joined other water-sector partners in advocating for higher funding levels before the U.S. Senate Committee on Environment and Public Works. General Manager Powell also advocated for creating a permanent Low Income Household Water Assistance Program to assist our most vulnerable customers.

Investments in water infrastructure protect public health, enhance economic growth, safeguard our environment, drive equity and environmental justice and create jobs. For every $1 million invested in water, 15-18 jobs are created. It's time to invest in water, an investment in healthy communities.

## A SMART ONE WATER VISION

At WSSC Water, we believe in Smart One Water, an integrated and holistic approach to water management. It recognizes that all water sources, including drinking water, stormwater, wastewater and other types, are interconnected parts of a single, integrated water cycle. Smart One Water promotes sustainable, resilient and inclusive water management practices that consider the entire water system, from source to tap and beyond.

To further this mission, we also strive to operate as a Smart One Water utility, applying advanced technology, data analytics and intelligent systems to enhance water resource management, distribution and conservation. Smart One Water integrates advanced meter technology, communication networks and data analytics to monitor and optimize water-related processes. Smart One Water systems aim to improve efficiency, reduce water waste, and provide real-time information for better decision-making in water management.

The Smart One Water concept aligns with the broader goals of sustainable water use, conservation and effective management to ensure the availability of clean water in an equitable, affordable manner for current and future generations.

# BIOENERGY BENEFITS

## PISCATAWAY BIOENERGY PROJECT

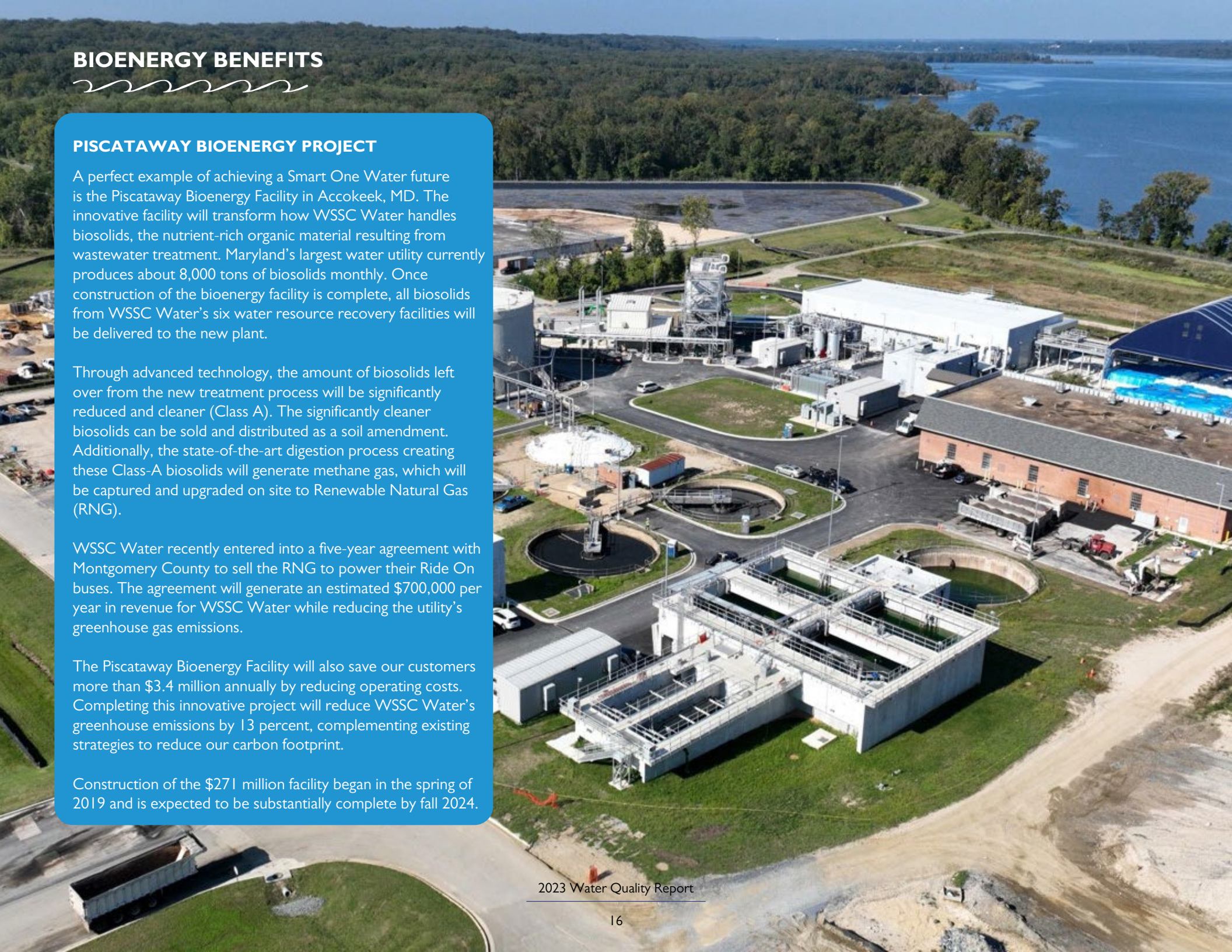
A perfect example of achieving a Smart One Water future is the Piscataway Bioenergy Facility in Accokeek, MD. The innovative facility will transform how WSSC Water handles biosolids, the nutrient-rich organic material resulting from wastewater treatment. Maryland's largest water utility currently produces about 8,000 tons of biosolids monthly. Once construction of the bioenergy facility is complete, all biosolids from WSSC Water's six water resource recovery facilities will be delivered to the new plant.

Through advanced technology, the amount of biosolids left over from the new treatment process will be significantly reduced and cleaner (Class A). The significantly cleaner biosolids can be sold and distributed as a soil amendment. Additionally, the state-of-the-art digestion process creating these Class-A biosolids will generate methane gas, which will be captured and upgraded on site to Renewable Natural Gas (RNG).

WSSC Water recently entered into a five-year agreement with Montgomery County to sell the RNG to power their Ride On buses. The agreement will generate an estimated $700,000 per year in revenue for WSSC Water while reducing the utility's greenhouse gas emissions.

The Piscataway Bioenergy Facility will also save our customers more than $3.4 million annually by reducing operating costs. Completing this innovative project will reduce WSSC Water's greenhouse emissions by 13 percent, complementing existing strategies to reduce our carbon footprint.

Construction of the $271 million facility began in the spring of 2019 and is expected to be substantially complete by fall 2024.



# PIONEERING WATER LEADER

## CAROLINE NGUYEN
**Principal Scientist**

It will take an entire cohesive and dedicated team to lead our Smart One Water effort—professionals who represent our organization and embody the idea of Smart One Water. These members of Team $H_2O$ represent WSSC Water's work from source to tap, toilet bowl to stream, and everything in between.

However, a team needs a leader, and Dr. Caroline Nguyen, a Principal Scientist in the Office of Innovation and Research, has been selected for this role. She is passionate about protecting public health and water quality and enjoys actively engaging frontline colleagues and the rest of Team $H_2O$, valuing their insights and expertise.

Carolyn has also built strong partnerships with top universities and industry leaders. She has an excellent track record of securing competitive external grants (e.g., Department of Energy, National Science Foundation, Water Research Foundation). In her 12 years at WSSC Water, she has worked on projects spanning source water protection, treatment optimization and sustainability initiatives.

"While numerous Smart One Water initiatives are in progress, we can do more. I'm excited to collaborate with our diverse group, each person contributing their unique strengths and expertise. Together with Team $H_2O$ and our community, we'll lead a holistic approach to resilient, reliable water management," says Caroline. "By seamlessly integrating data-driven tools, innovation and technology, we're tackling our challenges and ensuring a sustainable and equitable future."

Caroline and the rest of the team recognize the importance of striving to embrace new trends and technologies and are excited by the opportunity to expand Smart One Water to another level.

## CONNECT WITH US

**Stay Informed**
WSSC Water Commissioners hold monthly meetings, which are open to the public and typically take place the third Wednesday of each month, beginning at 10 a.m. Meetings are held virtually or at the
WSSC Water Support Center
14501 Sweitzer Lane
Laurel, MD 20707

Visit wsscwater.com or contact the Corporate Secretary's Office at 301-206-8200 to confirm meeting times and locations.

**Contact Information**
**Customer Service** 301-206-4001
Weekdays, 8 a.m. to 6 p.m.
customerservice@wsscwater.com

**Water/Sewer Emergencies/Water Testing**
301-206-4002
24/7/365
emergencycallcenter@wsscwater.com

The 2023 Water Quality Report is available for download at wsscwater.com/wqr. Call 301-206-8100 or send an email to communications@wsscwater.com to request a printed copy.

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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.

Ce rapport contient des informations très importantes sur votre eau potable. Demandez à quelqu'un de vous le traduire ou adressez-vous à une personne capable de le comprendre.

这份报告包含有关您的饮用水的十分重要的信息。请找人帮您翻译报告的内容或找了解报告内容的人交谈。

Ìjábọ̀ yii ní ifitonileti tí ó ṣe pataki pupọ nipa omi tí o nmu. Jọwọ wá ẹnikan lati túmọ̀ rẹ̀ fún ọ tabi kí o bá ẹnikan tí ó yé sọ́rọ́.

이 보고서에는 여러분이 마시는 물에 대한 아주 중요한 정보가 포함되어 있습니다. 이 보고서를 번역해 줄 사람을 찾아보거나 그 내용을 잘 아는 사람에게 물어보십시오.