



ESG Report 2021

DC Water





Foreword

Sustainability is about balancing the economic and social value we create for our communities with the environmental impact of delivering that value so we can meet the needs of the present without compromising the ability of future generations to meet those of their own.

As a water and wastewater utility, we don't operate in a vacuum – we are influenced by forces beyond our control, such as climate change, natural disasters, and pandemics. At the same time, we have a responsibility to ensure we operate in ways that do good for our communities rather than harm them.

Five years ago, the District of Columbia released the innovative and ambitious Sustainable DC plan. DC Water is committed to supporting Mayor Muriel Bowser in this effort to make the District the healthiest, greenest, and most livable city for all our residents.

However, sustainability is about more than just our impact on the environment – it means supporting the expansion of our economy to enable job growth; it means ensuring fairness and providing equitable opportunities for our entire community to prosper; and it means putting in place the controls and governance to enable our commitments.

We are delighted to present our inaugural Environmental, Social and Governance (ESG) report. We have a history as an innovative authority that continually focuses on how we meet the needs of an ever-changing world, and this report highlights the progress we have made in meeting climate, equity, and governance goals. These efforts will have long-term impacts and we have been undertaking numerous initiatives designed to meet these goals and the expectations of our staff, customers, and stakeholders.

This report tells a story – the story of our commitment to delivering on the promises that we have laid out of superior service, ingenuity, and stewardship for all our stakeholders, from our customers and clients to our debt investors and our staff. But this report is not the whole story – but more accurately, the first chapter in our long-term commitment to ESG principles. Our new strategic plan, Blueprint 2.0, details these promises and commits the authority to thinking with equity, sustainability, resiliency, reliability, and wellness at the forefront of everything we do over the next five years.

So, while this report may be our inaugural edition, reflecting on many of our recent successes, it will not be our last. Through reading it, we trust you will gain a complete understanding of our commitment to these principles and our values of accountability, trust, teamwork, customer focus, safety, and wellbeing.



Tommy Wells
Chair of the Board of Directors



David L. Gadis
Chief Executive Officer
and General Manager

About DC Water and Blueprint 2.0



Our vision at DC Water is to aspire to be known for superior service, ingenuity, and stewardship to advance the health and well-being of our diverse workforce and communities. Our mission and primary objective to achieve our vision is to exceed expectations by providing high quality water services in a safe, environmentally friendly, and efficient manner.

We provide around 700,000 residents and 21.3 million annual visitors to the nation's capital in the District of Columbia with essential water, wastewater, and stormwater services. We serve an area of approximately 725 square miles and treat wastewater for approximately 1.6 million people in neighboring jurisdictions, including Montgomery and Prince George's counties in Maryland and Fairfax and Loudoun counties in Virginia. Our values of accountability, trust, teamwork, customer focus, safety and wellbeing guide our decision making and reflect our culture, enabling us to deliver a on our vision and mission for the communities we serve.

Blueprint 2.0

DC Water is faced with the continuous challenge of balancing customer affordability and financial stability, as well as how we continue to invest in our aging assets while continuing to provide equitable and affordable rates. We are also anticipating new regulations and the need for enhanced watershed coordination with key stakeholders, and to accelerate removing lead service lines completely from our system.

There are many trends and drivers that will influence the future context in which we will operate over the next three decades. The trends considered to be most impactful for DC Water are diverse and include global, national, and local drivers of change. For example, DC Water has a critical role to play with the United States rejoining the Paris Agreement and President Biden pledging to make the fight against climate change a top priority of his administration. These trends that are forecasted to significantly impact DC Water in the long term include adapting to climate change, the transition to net-zero emissions, changing regulatory and political landscapes, and declining water consumption.

Blueprint 2.0 is our new enterprise-wide strategic plan designed to guide us over the next five years and beyond. This strategic plan will allow DC Water to address immediate challenges by focusing on stronger alignment between our strategic priorities and financial budgets, stronger integration and alignment between our goals and core activities, and a strong focus on high performance outcomes.

Blueprint 2.0 sets out five Organizational Imperatives, which are defined outcomes essential to achieving our strategic ambition over the next five years and beyond. The Imperatives have been developed through engagement with a cross section of key stakeholders and are used to frame our strategy and address our upcoming challenges.

Throughout this report, icons will demonstrate how we are aligning our ESG efforts to our strategic imperatives, which are:



Healthy, Safe and Well

Is everybody we impact healthy, safe and well?



Reliable

Can we deliver our agreed service level in an efficient and effective manner?



Resilient

Are we able to cope with and recover from disruption, anticipating shocks and stressors to maintain service?



Sustainable

Are we able to meet the needs of the present without compromising the ability of future generations to meet their own needs?



Equitable

Are we operating in an equitable manner to enable our employees, partners, customers, and communities to prosper?

Our Inaugural ESG Report

This report is our first Environmental, Social, and Governance Report (ESG). For decades, DC Water has been implementing ESG matters in everything we do, from vast consideration of factors in the natural world and activities that impact stakeholders, to our commitment in operating under a resilient and fair governance framework. We have naturally organized our operations to carry out ESG objectives. Operating one of the country's largest water and wastewater utilities responsibly and efficiently relies on the awareness and prioritization of matters intrinsically inherent in ESG matters.

Our ESG ambitions are aligned with the imperatives developed under our new enterprise-wide strategic plan, Blueprint 2.0. It frames our transformational ambition to accelerate the initiatives we began addressing within our previous strategic plan, The Blueprint, to address critical, long-term drivers of change that are also needed to establish an effective ESG framework. Through its development, we identified the importance of learning from the past to be resilient to future challenges while at the same time keeping our people and communities safe and well. We must continue to provide reliable services while leading sustainable stewardship of the watershed in which we operate. Most importantly, we must ensure we operate in a sustainable and equitable manner to enable our key stakeholders to prosper.



By undertaking long term, strategic horizon scanning and aligning to the United Nation's Sustainable Development Goals, we have developed Blueprint 2.0 to be aligned with ESG performance measures. The strategic plan is built of five Organizational Imperatives which outline how we plan to achieve our strategic ambition over the next five years and beyond. We use the term 'Imperative', to highlight the importance and urgent need to focus our collective efforts in a targeted manner. Like the relationship between the factors of ESG, the five imperatives are an interconnected system and relationships between each imperative are complex and interwoven. Within each Imperative are Strategic Themes that provide clear structure, specific detail and focus to help realize the Imperatives. 'Goals' and accompanying leading or lagging metrics are being designed to help us achieve and track our progress in the future.

This report demonstrates our progress and stands as the stepping-stone to hold our Authority accountable in advancing our ESG initiatives and an opportunity to assess and share all of the work we have accomplished to instill health, safety and wellness, reliability, resiliency, sustainability, and equity into our day-to-day operations.

Timeline

- 1996** ● District of Columbia Water and Sewer Authority created as an independent authority of the District of Columbia
- 1999** ● Creation of the **Business Development Plan** recognizing opportunities to better engage the under-served segments of the community
- 2005** ● Initiation of **\$2.7 billion Clean Rivers Program** to address combined sewer overflows (CSO) to the Potomac and Anacostia Rivers
- 2014** ● \$350 million green bond and century bond issued by DC Water, marking the **first certified green bond issued in the United States** and the first 100-year "Century" bond issued by a municipal water utility
- 2015** ● Commissioning of DC Water's 8MW Bailey Biogas Generator at Blue Plains Advanced Wastewater Treatment Plant (Blue Plains), the largest of its kind when it was built and **winner of the US Water Prize from the US Water Alliance**
- 2016** ● **Blue Drop**, DC Water's non-profit arm, created to manage projects and customer relationships to maximize DC Water's investments in its facilities, processes and intellectual property
- 2016** ● \$25 million Environmental Impact Bond issued by DC Water, **the nation's first environmental impact bond** used to fund the initial green infrastructure projects in the Clean Rivers Project
- 2018** ● Completion of **first green infrastructure program** in Rock Creek Project
- 2018** ● Blue Plains and Anacostia River Tunnels of the **Clean Rivers Project** are connected and operational
- 2019** ● DC Water's new headquarters, **HQO, certified as LEED Platinum by the U.S. Green Building Council (USGBC)**, as it emits 42% less GHG emissions, uses 48% less energy and 90% less water than a building of similar size
- 2019** ● DC Water becomes **the first utility to receive accreditation through the Emergency Management Accreditation Program (EMAP)**
- 2019** ● **Lead Free DC** launched to accelerate the replacement of lead service lines and align DC Water's replacement program to incorporate new District law
- 2020** ● DC Water's **Enterprise Performance Management Office (EPMO) chartered**, creating an operational environment where programs and projects are managed to advance strategic initiatives
- 2020** ● **Expanded backflow valve reimbursement program** in response to September 10th flooding events
- 2021** ● Creation of **first-of-its-kind Multifamily Assistance Program (MAP)** and the Residential Assistance Program (RAP) to expand DC Water's financial assistance programs
- 2021** ● **\$156 million WIFIA loan** issued to fund repair, rehabilitation, and replacement programs

Environmental

Environmental stewardship is at the core of DC Water's operation as a water and wastewater utility. We rely on a shared resource that is subject to the health of the global and local ecosystem in our day-to-day operations. To succeed at our commitment in delivering safe, reliable, resilient, and sustainable water and wastewater services to our customers, we must actively work to safeguard and protect the intricate ecosystem we belong to. Through conscious energy consumption and emissions reduction, water and resource management, and interaction with the biodiversity and environment we are situated within, DC Water strives to care for the systems we and our customers are all a part of.



Energy and Emissions



DC Water is the largest consumer of electricity in the District of Columbia. Therefore, evaluating where our energy comes from is important not only for DC Water’s carbon footprint, but also for the entire community. That is why we have committed to finding renewable energy solutions for our energy demand to mitigate our contribution to climate change. Through innovative ways of turning waste into a resource via on-site generation and smart design, we have been able to offset over half of our energy demand from renewable sources.

→ Mitigating the future impacts of climate change

Our largest contributor to our renewable energy portfolio is DC Water’s hallmark Bailey Bioenergy Facility at the Blue Plains Advanced Wastewater Treatment Plant (Blue Plains). This combined heat and power facility produces eight megawatts of electricity, creating enough energy to power almost one-third of the treatment plant’s energy consumption.

The Bailey Bioenergy Facility uses organic materials from the wastewater entering Blue Plains and turns it into energy by digesting those solids in our combined thermal hydrolysis and mesophilic anaerobic digestion system, capturing the resulting methane, and burning the methane onsite via three, five-megawatt turbines. Having the generators onsite allows for a closed

loop system that captures the steam and uses it in the hydrolysis system through heat recovery steam generators.

To help address the remaining energy needs at Blue Plains, we are installing multiple solar farms around the 150-acre campus. To date, we have installed solar panels over parking lots, rooftops, a few ground mounts, and a canopy structure on the DC Water pier in the Potomac River. In total, the panels are generating four MW of electricity through 12,343 panels covering 264,016 square feet and will save the Authority nearly \$4 million over the next 20 years.

A more ambitious solar program, Phase II, aspires to place 11 MWs of solar panels over the settling tanks with DC Water financing and owning the electricity generated. DC Water is currently piloting our own solar project nearby to help kick-start the programming of Phase II and is further investigating how to fund other renewable energy projects by selling renewable energy credits (RECs).

DC Water already generates RECs for multiple systems including our biogas generation and heat capture at Blue Plains, the heat captured from sludge cooling at Blue Plains, waste heat captured from the wastewater heat transfer at our headquarters building (HQO), and our Brentwood Solar Project. As of July 2021, we have sold over \$3 million in Tier 1 RECs.

In addition to creating revenue for DC Water, our renewable energy generation has helped DC Water reduce our Green House Gas (GHG) emissions by 28% since 2007. Bloom, our wastewater byproduct, has also contributed greatly to the reduction of DC Water’s GHG emissions by offsetting almost 50,000 CO2e tons a by sequestering carbon and reducing nitrous oxide emissions as compared to other fertilization methods.

DC Water’s commitment to reducing our emissions can further be seen in our decision to build HQO on top of the O Street Pumping Station. By reusing existing land, we were able to avoid new land from being developed and unlocked the opportunity to capture the excess energy coming off the sewer lines below the pumping station. Through a wastewater thermal exchange system, heat from the flowing wastewater in the pump station is used to heat HQO in the winter

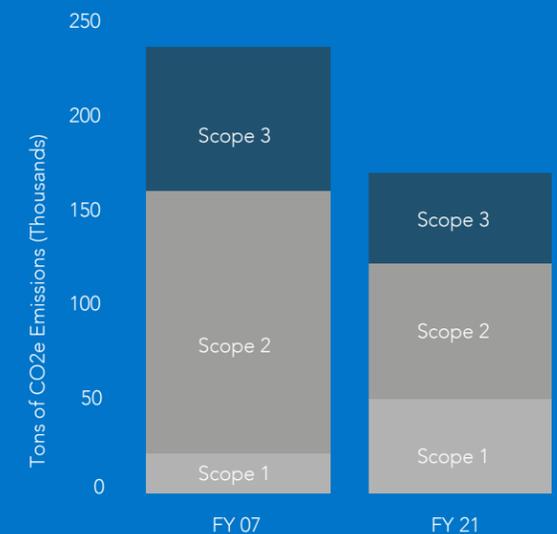


and acts as a heat sink during the summer to cool the building. With the addition of other energy conscious design attributes, such as ultra-efficient floor-to-ceiling windows and motion-detection light switches, HQO is one of the most energy-efficient structures in the city, using 48% less energy and emitting 42% less GHG emissions than a typical office building of its size.

At the time of construction, HQO was the first new office building in North America to use a wastewater thermal exchange system to heat and cool a building. Since then, DC Water has explored other ways we can capture the energy of our wastewater system and have worked with the American Geophysical Union to use one of DC Water’s own municipal sewers to achieve their Net Zero goal for their own building renovation.

28% reduction

in emissions since 2007.



12MW

of renewable energy are being generated at Blue Plains through the Bailey Biogas Generator and onsite Solar.

50,000 tons

of CO2e have been reduced since 2007 by turning Biosolids into Bloom.

\$3.1m

in revenue have been earned from Renewable Energy Credits (RECs) since 2018 at Blue Plains, HQO, and our other solar projects.

Water and Resource Management

DC Water manages 400 million gallons of fresh drinking water and wastewater every day. This operation comes with a responsibility to use those resources as efficiently and economically as possible to bring about the highest level of financial and environmental sustainability to our stakeholders and planet as possible. Through innovative rate structures, resource recovery, and activity in building resiliency into our water system, we have been able to effectively use and reuse the water that is delivered to our customers and the wastewater that makes its way through our Blue Plains facility while adhering to the integrity of our water supply.

Encouraging sustainability and efficiency through rate structures

In 2019, DC Water changed the composition of its rate structure. The rate calculated through the Clean Rivers Impervious Charge (CRIAC) was transitioned to a partial volumetric charge system to encourage water conservation. Before, the rate was based only on a property's impervious area square footage and the corresponding rainwater contribution to the district's sewer system. We recognized that giving ratepayers more choice in the way they are billed could not only lead to a reduction in the way they consume water but would also be more equitable across our communities.

Through the partial volumetric approach, customers pay based in part on how much water they use and in part based on the impervious area. By incorporating water consumption into the model, customers can have a cheaper bill by using less water, incentivizing water reduction. The volumetric charge system complements our existing rate structure that, since 2016, has provided a discount for customers who use four Ccfs (400 cubic feet) of water or less during a billing period.

To help bring down the costs of ratepayer's CRIAC portion of their rate, we have also instituted the CRIAC Incentive program in partnership with the District Department of Energy and Environment (DOEE). The program allows customers who manage stormwater on their property, using approved best management practices (such as rain gardens, rain barrels, pervious paving, green roofs, bioretention, and stormwater reuse methods), to be eligible for a discount of up to 20% on the impervious area charge.

The CRIAC discount was increased from 4% in October of 2019 (FY 2020) and has already demonstrated its effectiveness in encouraging conservation initiatives. The number of participants tripled after the discount was increased and close to 5,000 participants have taken advantage of the program two years in a row.

Recovering and reusing our planet's limited resources

At DC Water, we believe there is no such thing as waste; only wasted resources. This mentality has allowed our innovative workforce to continuously monitor our operations for opportunities to take advantage of the resources we have throughout DC Water to not only be more environmentally conscious, but also economically creative.

To enable this innovative approach, we are proud to have established a small, nimble non-for-profit affiliate of DC Water called Blue Drop. One of our most innovative programs in Blue Drop has enabled us to take the waste we have entering our Blue Plains Facility and transform it into a resource that can help DC Water, the regional farming community, and ultimately our customers.

Through our award-winning thermal hydrolysis and anaerobic digester system, we can take the wastewater entering Blue Plains and generate energy, capture waste heat and steam, and earn RECs all while achieving a higher standard of treatment. The output is clean water that enters the Potomac River and an EPA-certified Class A, 'Exceptional Quality' biosolids product we call Bloom.

Bloom's high-quality mixture of nitrogen and carbon allows it to be a great soil conditioner that promotes healthy and resilient growing. We sell Bloom to farmers all over D.C., Maryland, and Virginia with the revenues offsetting over \$20 million in operating costs annually through a reduction in trucking and chemical usage we used to spend on biosolids disposal. These savings allow for more affordable rates for our customers and alleviate noise and diesel pollution from a 66% reduction in trucks coming in and out of Blue Plains. To help our local community, we provide Bloom to community gardens and urban food banks for free. As we promote our Bloom product and

increase the market size, we have the potential to sell up to 90,000 tons a year of the high-grade Bloom product.

Another clever way we reuse resources through Blue Drop is by renting out our state-of-the-art headquarters, HQO, for events. Large scale community venues are few and far between in DC, especially with ones that have great riverfront views like HQO. In addition to the revenue we obtain from normal rentals, we also open it up to community-oriented organizations for free or at cost.

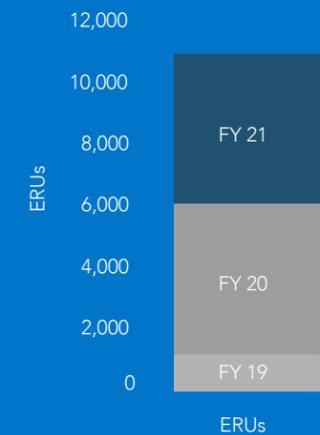
One of the appeals of renting out HQO is our 7,900 square-foot roof that, in addition to its panoramic views, has a stunning green roof. The function of the green roof is multifaceted, like many things at DC Water. In addition to bringing local pollinators into the city and heightening the aesthetic of our venue space, it also reduces stormwater runoff by capturing water in a 40,000-gallon cistern on site. The collected water from the green roof is used in 100% of the toilet flushing and irrigation needs of the building, saving up to 1.2 million gallons of water annually.

Securing resilience of water supply

In our partnership with the Potomac River Drinking Water Source Protection Partnership (DWSP) and Metropolitan Washington Council of Governments, we are identifying collaborative, regional priorities to protect our source water in the Potomac River Basin. While we are fortunate to have a robust source water supply in the Potomac River, we nevertheless are working with our regional partners to identify secondary sources for water to further improve our water supply resilience. This includes researching and evaluating options for direct and indirect potable reuse and pursuing large-volume raw water storage. In addition to exploring new and reliable forms of supplying water, we are currently collaborating with ICPRB to research how our neighbors further up in the watershed can prioritize multi-benefit, land conservation measures which create source water quality improvements.

320%

increase in participation by equivalent residential units (ERUs) in the CRIAC Incentive program after the program's discount was increased in FY19. Since FY 19, DC Water has provided over **\$225k** in assistance for Green Infrastructure solutions.



47,500 tons

of Bloom sold in FY21, up **8%** from the year before and up **19%** from FY19. The combined revenue and savings outcome of Bloom sales yielded a savings of over **\$2m** to DC Water. Through our operational efficiency and smart contracting, we have been able to gain more savings per ton over the past three years.



We work to support our local agriculture community by providing Bloom for free to local non-profits:

- District of Columbia Public Schools
- Farming 4 Hunger
- Capital Area Food Bank
- Washington Yu Ying Public Charter School.

Biodiversity and the Environment



space (absorbent surfaces utilizing plants and other pervious materials) at street level and separate, gray space below ground (tunnels, vaults) to reduce runoff and control the CSOs as they occur.

To help absorb the spikes in rainfall and control the amount of combined sewage overflowing into the rivers, we launched an ambitious Green Infrastructure (GI) initiative that aimed to collect, filter, and slowly infiltrate water back into the watershed through bioretention systems, downspout disconnection and rain barrels, and pervious pavement. To date, we have installed GI systems to cover nearly 500 acres of land in the Rock Creek area, providing efficient stormwater management and replacing the need to have a major underground wastewater tunnel built in that part of the District.

Human activity has introduced new challenges for our rivers in the form of climate change causing more severe and abnormal weather patterns, altering the landscape with impervious surfaces, and introducing new pollutants that change the biology of their ecosystems. As an Authority that relies on the health and wellbeing of the rivers in our region, it is our obligation to ensure we are operating in a way that protects the natural functioning of these systems and promote measures to protect it wherever we can.

Adapting to the impacts of climate change

When excessive amounts of rainfall hit the hard cityscape of the District, a tremendous amount of water, trash and other pollution enters DC Water's combined wastewater and stormwater sewer system. If the storm is large enough, enough water can enter the system and cause it to overflow into our waterways. With more frequent and intense downpours and a steady growth in urbanization, combined sewer overflows (CSOs) to local rivers happen more often resulting in a myriad of impacts to our local environment.

To adapt to the increased likelihood of weather events occurring and further our commitment to keeping our waterways safe, we embarked on a \$2.7 billion project named DC Clean Rivers to reduce CSOs. We took a multifaceted approach that involves increasing green

Through our GI program, we also are helping create jobs linked to climate change adaption. DC Water has established an ambitious local jobs program that includes training and certification opportunities for District residents interested in GI construction, inspection, and maintenance. Our partner training organization, The National Green Infrastructure Certification Program (NGICP), has trained and certified the first group of individuals in the GI program with more residents getting certified to meet DC Water's goal to have 51% of new jobs created by the GI project filled by District residents. To date, 179 District residents have been trained in the NGICP with 35 going on to work in the GI industry.

To capture additional stormwater that could result in a CSO, we are building out a system of large wastewater tunnels underneath the District accompanied with diversion facilities, drop shafts, and support structures to capture excess flow from our existing combined sewers. These systems are designed to divert 96% of the wastewater that could cause CSOs to our Blue Plains facility.

As the climate changes, so will ecosystems. To improve the quality of the Anacostia and Potomac Rivers, DC Water and its partner, the Anacostia Watershed Society, placed 5,000 mussels in those waterways. Historic populations of shellfish in the mid-Atlantic were legendary for their abundance,



and their absence is both a symptom and a cause of impaired water quality. These mussels alone should filter about 18 million gallons of water over a single year. The partnership between DC Water and the Anacostia Watershed Society will generate data that show whether the mussels survive and then quantify the potential water quality improvement. The results will help determine whether large-scale installations of shellfish are a viable and efficient way to improve water quality and help bring back biodiversity into our rivers.

This project aligns with the goals of DC Water's Clean Rivers initiative, along with regional ecological restoration efforts like the Chesapeake Bay Watershed Agreement, the Anacostia River Watershed Restoration Plan, DC Wildlife Action Plan, and the Sustainable DC Plan.

In addition to helping biodiversity thrive underwater, we are working to aid biodiversity on land through our Blue Plains Honey initiative. Through our partnership with the D.C. Beekeeper Alliance, we placed 15 beehives at our Blue Plains facility. The bees were initially placed there as an experiment on the resiliency and adaptability of bees and to garner relationships with DC's urban agriculture community. It was also to offer a home to city bees that must adapt to the changing landscape of city life. This year, the apiary will produce over 100 pounds of honey, packaged into 300 jars of honey to be given out during community events.

96%

of system wide CSO volume entering the Potomac and Anacostia Rivers will be reduced through the Clean Rivers program.

18 miles of tunnels

100+ feet below ground bringing CSO to Blue Plains.

498 acres

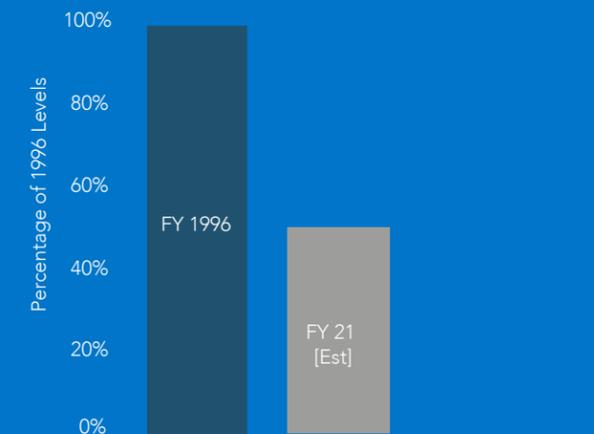
of Green Infrastructure being constructed.

35 jobs

Created for District residents from the Green Infrastructure program with 135 more residents going through the NGICP training.

50%

less nitrogen, phosphorus, and suspended solids from discharges are making their way into our waters compared to 1996 levels because of the Clean Rivers program.



Nitrogen, Phosphorous and Suspended Solids Discharge

5,000 mussels

placed in the Anacostia and Potomac by DC Water and our partner the Anacostia Watershed Society to filter **18 million gallons** of water every year.

Social

DC Water is committed to providing exceptional service to every stakeholder of our water system. We recognize our operation plays a vital role in the lives of the customers and communities, through our water services to our infrastructure projects. Being one of the largest constructors of the built environment in DC, we have the ability to create jobs and economic opportunities, and ensure equitability is intentionally built into the fabric of our communities.

4 QUALITY EDUCATION
6 CLEAN WATER AND SANITATION
8 DECENT WORK AND ECONOMIC GROWTH



Customer

We are committed to providing safe and equitable water services to all our customers. This includes removing lead service lines, with particular attention to vulnerable populations, like children, and communities that have historically been underserved as well as minimizing service disruptions for those undergoing financial hardships. We understand that water bills can play an economic toll on our rate payers, especially during emergencies and uncertain times. Therefore, we strive to make our rates the most appropriate and equitable for all our customers while seeking to provide assistance programs to help our customers pay their bills.

Embedding equitable infrastructure decision-making

DC Water Launched Lead Free DC (LFDC) in 2019 to outline a comprehensive, 10-year strategy to remove all lead service lines (LSLs) by 2030. LFDC prioritizes customer equity through its replacement selection methodology as well as its financial assistance programs, leveraging District and federal funding to support DC Water's own contribution to assisting its customers.

During Phase 1 of LFDC last year, we successfully replaced LSLs for more than 850 households, up from 500 households the year before and up from 200 households in 2019 when the program started. To help accomplish the replacement work of LFDC, DC Water has trained 15 plumbers and contractors to perform the work, mostly coming from small and local businesses. Over the next 10 years, DC Water is planning to replace over 27,000 additional LSLs and we will seek to engage with more local plumbers and contractors as well as other external partners.

To ensure our customers have representation in the decision-making of DC Water projects, we hold townhall meetings and created a Stakeholder Alliance, a 21-member panel of residents who provide informal input to the CEO and General Manager on a range of timely and important issues. The Stakeholder Alliance allows for a larger number of voices from District residents and business groups to provide their input as DC Water considers potentially far-reaching changes.

Minimizing service disruption for customers

At the beginning of the pandemic, DC Water took several unprecedented steps to help its customers keep their water on and ease their financial burden. First, the Authority suspended all disconnections and provided flexible payment terms for any customer impacted by COVID-19. We also agreed to restore water service to any residential customer who did not have water at their property.

Second, we expanded our customer assistance programs (CAPs) to accommodate a wider variety of situations for our customers. We broadened the eligibility for our CAPs that offers discounts on monthly water bills and launched two programs aimed at alleviating the financial impacts brought on by the Coronavirus Pandemic: the Residential Assistance Program (RAP) and the Multifamily Assistance Program (MAP). Under RAP, residential customers who have fallen behind on their bills during the pandemic can apply for up to \$2,000 to eliminate their past due balance. Under MAP, owners of multi-family buildings can receive a discount to pass along to qualified tenants.

Over the past two years, we also expanded our extended payment plan options to provide our customers with more flexibility via our Serving People by Lending a Supporting Hand (SPLASH) program. SPLASH helps eligible customers to maintain critical water and sewer service in times of financial emergencies. SPLASH is funded solely by contributions from our employees, customers, and the community, and every dollar we receive is distributed to eligible customers.

To assist eligible non-profit organizations in our community, we partnered with the District Government to develop the CRIAC Nonprofit Relief Program. Participating organizations can receive credits on the CRIAC portion of their water bill, in part by completing a green infrastructure, stormwater mitigation project to help diminish the effects of stormwater runoff on their property or elsewhere in the District.

Delivering excellence for customers in a timely manner

On September 10th, 2020, DC experienced some of the heaviest and most sustained rainfall it had seen in decades. Nearly three inches of rain fell in just 90 minutes and resulted in flooding many of our residents' homes. During the emergency, DC Water quickly responded by providing unprecedented direct assistance to customers who experienced flooding. That included \$588,000 for remediation services such as drying basements and removing drywall at 183 properties. In addition to the sewer cleaning services provided, DC Water reimbursed 155 customers for their cleaning costs up to a maximum of \$5,000 for a total of \$517,141.

Upon inspecting the damage and meeting with the hardest-hit residents, we pledged to expand our Backwater Valve Rebate Program to prevent a similar situation from happening again. Those who had experienced a sewer backup related to the storm were eligible for a 100% rebate of the cost of installing a backwater valve, up to \$6,000. To date, the Authority has approved 337 requests for the installation of backwater valves.

Providing affordable and equitable rates

Setting our rates is a multi-stakeholder initiative that relies on input from our ratepayers, operational needs, and our capital improvement projects. Normally, we hold in person townhall meetings for our customers to provide input. However, to account for social distancing guidelines due to COVID-19, DC Water convened "virtual" town hall meetings to listen to our customers. Although this created separation from the in-person conversations we value, the virtual format allowed a record number of residents to participate with more than 4,000 people across all eight wards joining the Authority in our first virtual series of townhall meetings to discuss rates. To get input from the business community, hotels, restaurants, and other enterprises, DC Water created a special forum to provide these stakeholders with the opportunity to raise any questions or concerns.

857

lead service lines were replaced in FY 21, setting a new all-time record.

\$9.4 million

in assistance was provided by DC Water for our customer assistance programs. FY 21 set a record in both the amount of assistance provided and the **16,315** accounts enrolled in our programs. The new programs this year, RAP and MAP, proved to be very popular with RAP enrolling **2.8k** accounts and MAP enrolling **5.9k** accounts.



\$72 thousand

donated to the SPLASH program in FY 21.

\$1.5 million

for clean-up relief related to the 2020 September Floods.

\$6 thousand

rebate available per home for backflow valve reimbursement program.

\$5 thousand

rebate available per home to help customers struggling with remediation costs as a result of September Floods.

Communities

To build equitable infrastructure for our communities, DC Water needs to build with our communities. That is why we developed progressive measures to actively encourage and support the participation of local and historically disadvantaged partners of our communities in everything we do at DC Water. We also recognize water is a shared resource amongst many communities and to ensure the health and sustainability of our river ecosystems necessitates coordination with our greater water stakeholder community.

Empowering communities through equitable projects

Our Business Development Plan, initially created in 1999 and revamped in 2020, provides the framework for the design and implementation of programs and activities that will promote and enhance participation of certified local business enterprises (LBEs), local small business enterprises (LSBEs), disadvantaged business enterprises (DBEs), minority business enterprises (MBEs) and women-owned business enterprises (WBEs).

In addition to our commitments to support enterprise empowerment, we have also established ambitious goals to promote the use of the local labor force. We have committed to have residents comprise at least 60% of the total contractor workforce and have residents fill 75% of new jobs created by contracts or procurements entered into by DC Water with contractors.

To help provide the supply of our local labor commitments and further our mission of empowering our communities, we created DC Water Works, a multi-pronged effort to boost local hiring on DC Water projects. Through this program, we actively encourage and support the development and participation of residents in the Authority's contractor workforce.

DC Water recognizes that there are challenges to identifying District residents with the necessary skills contractors are looking for on DC Water projects. Accordingly, we have established strategic partnerships with local resource organizations, government agencies, labor organizations, training providers, and high schools to identify candidates for "ready to fill" vacancies. These partnerships revolve

around the skills development of identified District residents and a placement program. We are entering our 5th year of the program and are proud to say we have added 500 jobs to our workforce.

Aligning partnerships and projects in a watershed management approach

DC Water belongs to several partnerships that work in concert to address the health of our rivers. We are a member of the Interstate Commission on the Potomac River Basin (ICPRB), an advisory, non-regulatory interstate compact agency of the Potomac Basin States of Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia as well as the federal government. It was formed in response to extreme pollution levels that required a regional, cooperative response. DC Water supports projects that align with the Commission's focus areas: Drinking Water and Water Resources, Water Quality, Aquatic Life, and Communication and Education.

DC Water also has an active role in the Potomac River Basin Drinking Water Source Protection Partnership (DWSPP), a cooperative group of over twenty utilities, government agencies, and regional stakeholders. The Partnership addresses the multi-faceted issues that affect the region's drinking water supply. Our work as a partnership includes minimizing the impact of agriculture, coordinating response efforts during emergency situations, contributing to environmental assessments, and educating residents about the importance of protecting upstream drinking water sources.

We are also a supporter of the Anacostia Watershed Society and the Anacostia Riverkeeper where we provide communications support, volunteers, and waterfront access and also participate in inter-governmental, collaborative efforts to advance watershed-scale efforts such as the Anacostia Watershed Restoration Partnership and the Leadership Council for a Cleaner Anacostia River.

Through our own initiative to clean up the Potomac and Anacostia Rivers, we operate two skimmer boats that remove floating debris and trash from the water. The boats remove over 400 tons of floating debris and trash each year, making our rivers cleaner and safer for everyone, including recreational users and their natural inhabitants—fish, waterfowl, amphibians, and aquatic plants.



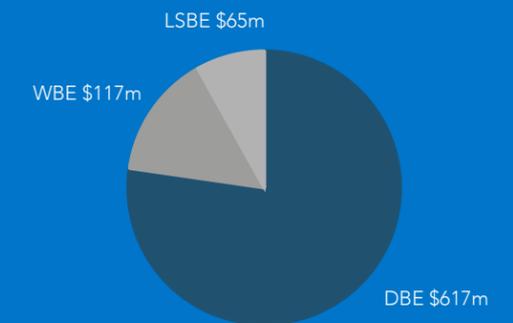
Delivering world-class, healthy water services

DC Water is committed to providing healthy water throughout our operations. We work closely with the U.S Army Corps of Engineers to ensure the 100 million gallons of drinking water we purchase from the Washington Aqueduct meets all water quality standards set by the U.S. Environmental Protection Agency (EPA). DC Water's water quality monitoring program is far more extensive than required by law. Our dedicated team performs more than 40,000 tests annually from 6,500 water samples taken at points throughout the city. These tests confirmed that our city's tap water meets or exceeds all regulations set by the Safe Drinking Water Act.

At the other end of our network at our Blue Plains facility, we abide to strict requirements to dramatically reduce the amount of solids, nitrogen, and phosphorous in the cleaned water we return to the Potomac to protect our local rivers and the Chesapeake Bay. Through innovative thinking and new technologies, DC Water continues to meet or exceed these performance levels set by the EPA for water discharges. For the past five years, we have achieved an overall program rating from EPA Region III of >99.5%. Our wastewater operations also have earned a Platinum Peak Performance Award from the National Association of Clean Water Agencies (NACWA) for excellence in wastewater and 100% permit compliance for effluent discharges for the past 9 years.

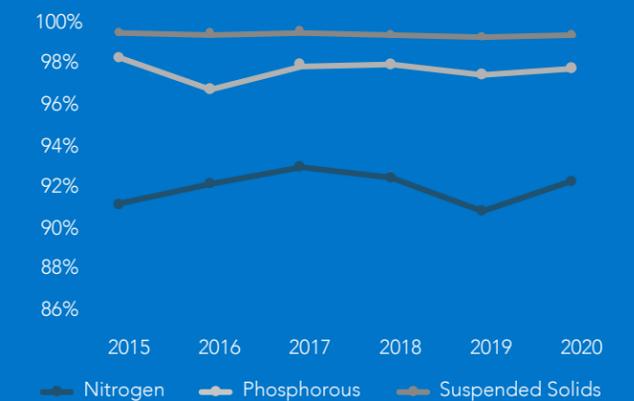
\$800 million

contracts awarded to DBEs, WBEs, and LSBEs in FY 20.



210m lbs

of suspended solids, 35m lbs of nitrogen, and 3.6m lbs of phosphorous on average are removed from the wastewater entering Blue Plains. Each year, more than 90% of all these substances are removed.



Some of the community members that we rented HQO to for free or at cost:

- National Forum for Black Public Administrators
- Greater Washington Urban League
- Potomac River Basin Partnership
- CulturalDC
- Step Afrika!
- Urban Land Institute.

Workforce

Our people are our power. Delivering clean water to 700 thousand customers; operating and maintaining the water distribution and wastewater collection systems; and treating 300 million gallons of wastewater a day requires our facilities to be operating 24/7. Without a dedicated workforce, we wouldn't be successful. Through our many initiatives to keep our employees safe and engaged, we have also been able to deliver exceptional service and become a leader in innovation for the water sector. To create an environment where creativity can occur requires dedication to creating an organization that our employees can feel safe, happy, heard, and well-represented.

A safe DC Water for all, above all else

Ensuring our employees are safe is a round-the-clock job. This was no more evident than during the Pandemic. When the rest of the world was going into lockdown, our workers went to work. Although we never shut down, we had to learn to adapt in a new working environment. We adapted procedures for social distancing, cleaning our work attire, and disinfecting our tools and service vehicles. We created plans on how to enter our customers' homes safely and prioritized the supplies of proper personal protective equipment (PPE) for our workers. It was a full team effort that resulted in DC Water authoring a guidance book with the Water Environment Federation for other utilities based on the best practices learned at DC Water.

During our normal, day-to-day operations outside of a global pandemic, we strive to make worker safety a proactive practice. We actively work to monitor the conditions we are working in and track metrics that are reflective of everyday activities. We follow industry best practices when it comes to operating with hazardous materials and strive to instill safety leadership in our workforce. We have an industry-high completion for our mandatory safety trainings at DC Water and constantly work to reinforce a safety culture throughout the authority.



One of the most important metrics is our lost time per incident rate to not only keep our operations efficient, but also to get our workers safely back to work as fast as possible. Through our workman's compensation program that sought to place injured workers in positions they were capable to perform, we were able to lower our lost time incident rate three years in a row. This not only kept our workers getting paid, but also reduced DC Water's costs associated with workers' compensation.

Although we are dedicated to reducing our 'lagging' indicators like our lost time incident rate, we are in the process of implementing leading indicators that track training, management involvement, leadership engagement, and other safety measures. We are also in the process of training our employees in the ISO45001 standard and aspire to become compliant in the standard in the future.

Ensuring together we thrive

Professional development of our workforce is important to DC Water. We believe in order for our employees to feel fulfilled and happy working here, they need to have access to opportunities for professional skill development. Having high-skilled workers is also important for the overall success of our operation. We want our workers to have the best skills for the job to ensure accuracy and provide the highest quality service.

For these reasons, we developed a suite of learning and development programs to ensure our workforce grows together. Our Lead and Learn program provides an opportunity for our entire staff to learn about different initiatives going on throughout DC Water and how to get involved in them. Our BLAST and DIRECT programs create time for junior staff to learn from senior staff through a mentoring program and for senior staff to engage in professional development coaching. For managerial leadership employees, we provide a year-long program called Leading Blue that gives supervisors and program managers the chance to brainstorm innovative ideas for DC Water, instilling creative thinking and a sense of entrepreneurship in our workforce.

As DC Water is an active member of the communities in which we serve, we also believe we have an obligation to ensure our community members have the opportunity for professional and technical skill development. That is why DC Water developed an acclaimed, multi-year paid apprenticeship program that provides over 2,000 hours of on-the-job-training coupled with classroom learning and professional development. Apprentices receive pay increases each year and are ready to step into DC Water jobs upon certification and graduation. Our inaugural class consisted of 14 apprentices and we are gearing up for our next class and are looking to expand the types of programs we offer, including maintenance of water services, administrative trades, and IT.

56%

reduction in the Lost Time Incident Rate of our employees since FY 16 and a 37% reduction in the Total Recordable Incident Rate over the same time period.

\$405 thousand

spent in learning investment.

2,000

hours of paid on-the-job training through our apprenticeship program and 144 hours of unpaid classroom training.

117

employees participated in the DC Water Tuition Assistance Program.

40

in-house training classes based on workforce needs and leading practices.

390

employees participated in Lead and Learn sessions.

450

non-union participants in our Advancing Blue program.

45

employees partnered with 7 mentors in our BLAST mentoring program.

50

Employees participated in our Unconscious Bias Diversity workshop.

Governance

Having an efficient governance structure is vital to the success of our Authority. We manage large-scale, high-use, critical assets that need to work in concert for us to provide reliable and effective services. The resilience of our processes relies heavily on our ability to identify, manage, and respond to emergencies brought on by natural and spontaneous shocks to our operations.



Structure

In order to ensure that we are able to deliver the commitments set forth in this report and in our strategy, we must ensure that our organization is effectively aligned and governed – we refer to this as ‘One Band, One Sound’. Ensuring that we are inclusive and have as many diverse voices as possible at the table helps us deliver the best service for our communities.

Embedding a sustainable operating and delivery model

DC Water (formally the District of Columbia Water and Sewer Authority) was established in 1996 as an independent agency by the Council of the District of Columbia and federal government, as codified in D.C. Code § 34-22021.01 et seq. Our robust governance structure, established by this enabling legislation, outlines the purpose and powers of the Authority; the appointment and duties of the Board of Directors and General Manager; and authority around revenues, including rate setting and bond issuance.

DC Water is governed by a Board of Directors consisting of 11 principal and 11 alternate members. The Board is composed of six representatives of the District of Columbia, two each from Montgomery and Prince George’s counties in Maryland, and one from Fairfax County in Virginia. These are appointed by the Mayor of the District of Columbia, confirmed by the Council of the District of Columbia, including selection of a chairperson. In addition, the mayor appoints the five principal and alternate members who represent the surrounding jurisdictions based on executive submissions from those jurisdictions.

DC Water may only act on policy matters after it receives a favorable vote of no less than six members of the Board of Directors. All Board members participate in decisions directly affecting the management of joint-use facilities. The District of Columbia members participate in those matters that affect District ratepayers and in setting fees for various services.

The Board, by affirmative vote of at least eight members, appoints the Chief Executive Officer and General Manager, to serve at their pleasure. The

current Chief Executive Officer and General Manager is Mr. David L. Gadis, who has been in post since May 2018.

There are eight committees of the Board: Audit, DC Retail Water and Sewer Rates, Executive, Finance and Budget, Environmental Quality and Operations, Governance, Human Resources and Labor Relations and Strategic Planning.

Ensuring inclusive and diverse representation

When we use the power of inclusion to drive innovation, this builds upon our Vision to be a world-class water utility. Advancing equity and justice in the water sector is not only the right thing to do, it is our responsibility. Since arriving at DC Water, Mr. Gadis has carefully assembled what the Chair of the Board of Directors describes as “the best leadership team in the country”. Mr. Gadis’ Senior Executive Team is made up of seven of the brightest and most respected utility professionals nationwide, including diverse backgrounds from work in the District, across the nation’s biggest municipalities, and internationally, even as far as New Zealand. With 38% of the Senior Executive Team identifying as female, and 75% being Black, Indigenous, People of Color, Mr. Gadis has assembled a leadership team which represents the communities that the Authority serves.

The Senior Executive Team is supported by talented Vice Presidents and Directors across each of the authority’s divisions. To ensure we have a diverse representation, DC Water abides by a robust affirmative action and equal employment opportunity programs.

As Chief Executive Officer and General Manager, Mr. Gadis has been recognized as: “Black History Hero” and the “Most Innovative Leader for Minority Business” by the Maryland Washington Minority Contractors’ Association; “Champion for Women Business Enterprises” by the Women’s President’s Education Organization; and “Champion for Minority Business Enterprises” by the District of Columbia Metro Hispanic Contractor’s Association.

A totally engaged and aligned DC Water

For DC Water to succeed, we need to make sure our employees succeed. This involves prioritizing the engagement and empowerment of our workforce, making sure all our employees receive fair treatment and equal opportunities to participate and be their authentic selves at work.

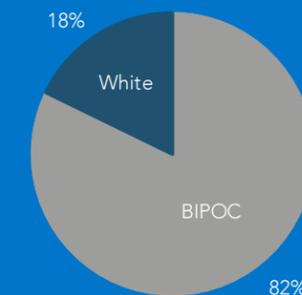
To cultivate this type of work environment we created the DC Water Inclusion Roadmap to identify priorities to realize true equity for all of our employees current and future. The roadmap has three priorities that focus on ensuring employees have the tools needed to advance and achieve their ultimate goals at DC Water and it strives to link business strategies to the diverse ideas and perspectives from across the Authority, the District, and the national water sector.

The three priorities of the roadmap are: creating a leading talent marketplace, enhancing employee experience, and cultivating an inclusive culture. Through these priorities, we seek to identify, evaluate, and close the gap on inclusion and equity barriers that impact recruitment, retention, advancement, employee engagement, and community stewardship. We want to celebrate employees who exemplify DC Water’s values while creating exposure opportunities for future growth of our internal talent and supporting the growth of a diverse talent pipeline through professional development and experiences.

We have enacted many programs that advance the priorities of the roadmap including our cross-divisional inclusion council called One Water that seeks to strategically link internal talent and leverage diversity and inclusion to drive business results and our commitment to offering access to education and trainings.

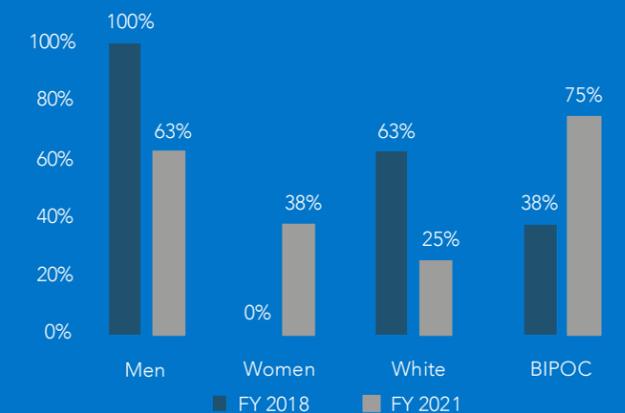
Increase

in the representation of Black, Indigenous, People of Color (BIPOC) in DC Water labor force since 2018.



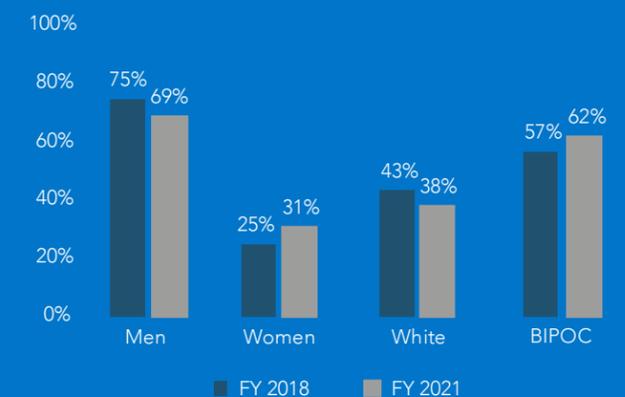
Increase

in the representation of women and BIPOC at the Senior Executive Team of DC Water.



Increase

in the representation of women and BIPOC at the leadership level of DC Water.



Operation

At DC Water, operational excellence starts with an integrated approach to enterprise-wide management to ensure that the Authority is aligned in everything we do. Having organizational alignment and collaboration begets behavior to drive innovation and streamlined performance, resulting in more sustainable and efficient outcomes.

Enabling the strategy through an integrated, enterprise-wide management approach

The Enterprise Program Management Office (EPMO) was instituted under our Chief Executive's office to create a high-performing utility. Before the institution of enterprise program management, the company worked in silos, inhibiting the effective creation, operation, and management of company-wide initiatives. To address this, DC Water created the EPMO in 2019 to engage the executive and programmatic leadership in day-to-day functions. It is designed to be cross-functional and engage across the organization to build collaboration and promote the diversity of ideas. At the time of its creation, DC Water was the first public water utility to have an EPMO in place.

The most tangible outcome of the EPMO is the development of Enterprise Resource Planning (ERP). The ERP is a cloud-based Oracle system, connecting the finance, procurement, and human capital aspects of DC Water. While we are still in its two-year roll-out, the authority has already seen gains in efficiency and communication. We received an award from the Project Management Institute for transitioning the ERP implementation from in-person to working from home during the pandemic.

Lead Free DC was a direct outcome of the creation of the EPMO process as it brought together different groups within the business to work towards one common outcome. The EPMO has also spurred innovation to be leaner and more efficient in other parts of the business, most notably in a collaborative initiative like the Innovation Refresh and the launch of the Strategic Management function.

Identifying innovative funding and financing

Accomplishing our ESG goals requires investment in our built infrastructure. To help fund and finance these initiatives, we have turned to innovative ways to obtain capital to successfully meet our ambitions. We issued our inaugural green bond in 2014 to finance the DC Clean Rivers Project. This historic \$350 million issuance represented DC Water's inaugural green bond issue and the first "certified" green bond in the US debt capital markets with an independent second party sustainability opinion. It was also the first municipal century bond issued by a water/wastewater utility in the United States. DC Water continues to offer green bonds, attracting diverse investors including a new class of socially and environmentally conscious investors and has recently formalized its Green Bond Framework which is aligned with the International Capital Market Association (ICMA) Green Bond Principles. To date, we have issued over \$750 million of green bonds over 5 years.

To progress the construction of our Green Infrastructure (GI) portion of the Clean Rivers program, we issued an Environmental Impact Bond (EIB) for the project's financing which was the first issuance of its kind in the world. The EIB provided the capital to construct the first GI projects for DC Clean Rivers, the installation of 25 acres of bioretention (rain gardens), permeable pavement on streets and alleys, and two green infrastructure parks. The EIB utilizes a pay-for-success model that acts as a performance-based financial tool, compensating investors if the GI overperforms, and in contrast, enables us to recover a portion of the initial investment if the GI underperforms. The bond is paid back as planned if the GI performance meets expectations. Earlier this year, DC Water achieved the goals set in 2016, reducing runoff into Rock Creek by nearly a fifth.

Ensuring efficient use of economic resources

DC Water's Pipe Sleuth program is one of the best examples where the efficiency of our physical infrastructure was heightened through the efficiency of our human capital.

In cooperation with our partner Wipro, DC Water created an innovative solution to inspect sewer pipes and prioritize repairs and replacements. Called Pipe Sleuth, it analyzes video footage captured inside sewer pipes and quickly identifies defects, classifies them, and completes a condition assessment, reducing review time by 86%. The program analyzes hours of footage in minutes and generates a report that identifies the type of defect, its location, and its severity.

The program yields multiple layers of resource efficiency. It saves valuable time, cutting the time down to analyze 60 minutes of inspection video to 10 minutes. It reduces up to 50% of the cost of anomaly detection, allowing DC Water to shift spending from maintenance to capital improvements. Relying on Artificial Intelligence and technology allows us to achieve a 90% accuracy rate while eliminating human errors due to fatigue and distraction, increasing detection reliability by up to 20%. Analyzing more pipes more efficiently allows DC Water maintenance crews to work where they are needed most, reducing disruptions, and improving customer service and safety. Through our nonprofit Blue Drop, DC Water is working with Wipro to make this tool widely available for sale to other utilities around the world. It is an example of how our talented staff are making significant contributions to the water sector.

50 types of anomalies

able to be detected in wastewater utility infrastructure through Pipe Sleuth.

50%

cost savings in anomaly detection realized with Pipe Sleuth.

90%

accuracy rate of identifying anomalies with Pipe Sleuth.

10 minutes

to analyze 60 minutes of sewer pipe inspection video and generate report through Pipe Sleuth.

\$779 million

Issued in environmentally focused bonds issued since our first issuance of a green bond in 2014. We have issued a green or an alternative bond every year to help fund our Clean Rivers project and Green Infrastructure Initiative.

\$3.3 million

owed to DC Water or to investors depending on the runoff reduction targets set in the novel Environmental Impact Bond (EIB) issued by DC Water in 2016. If the runoff reduction from the green infrastructure constructed from the EIB was greater than 41.3%, then DC Water would be owed \$3.3m from investors. If the runoff reduction was less than 18.6%, DC Water owed \$3.3m to investors. Both options have a probability of 2.5%. If it fell in between (95% probability), there is no additional payment.

9 consecutive years

Awarded Platinum Peak Performance Award from the National Association of Clean Water Agencies for 100% compliance with regulatory permits.

Risk Management

DC Water is an asset-based organization. We rely heavily on our horizontal infrastructure, the pipes and tunnels that deliver drinking water to our customers and carry wastewater for treatment, and our vertical infrastructure, the facilities that intake, process, clean, and return water to the Potomac River. To maintain a high-level of functionality, reliability, and safety to our customers, we have a robust approach to managing our assets that is supported by our strategic plan, Blueprint 2.0, and embedded with risk management.

Safeguarding a high performing network of systems and asset

We see the longevity of our operation as a primary element of sustainability. To safeguard our facilities from floods and sea-level rise, we constructed flood protection systems around our Blue Plains facility to prepare for 100-year events and are looking to augment our protection to prepare for 500-year events. We have eliminated risks that could shut down operations such as eliminating chlorine gas, a highly explosive substance, to a liquid-based, alternate disinfection solution. We also acknowledge the introduction of new forms of substances into our waste stream that could play a larger role in water quality in the future, such as microplastics and PFAS, and are actively undergoing research to understand the impact and how best to address these pollutants to ensure the health of our customers and the broader watershed we are a part of.

Securing assets through value-driven asset management and proactive maintenance

Our asset management program follows the scope set out by the Institute of Asset Management and utilizes the Maximo Enterprise Asset Management software to organize the day-to-day evaluation of our assets. Our approach to asset management decision-making is guided by business case evaluation, risk analysis, our aging assets and shutdown strategies, and life-cycle cost and value optimization.

Our capital improvement projects are intricately related to our asset management process. We have developed a prioritization schedule that is based on a specific set of criteria. Our asset management plan is also intertwined with our asset operations as we believe proactive management is key to the success

of managing our assets. When reviewing the risk and health of our assets, we have a criticality ranking performed at the equipment level, undergo a risk ranking that is used to inform our capital planning with on demand data, and an annual risk ranking exercise.

Undertaking real time monitoring to inform decision making

We view data as one of our vital assets. Therefore, we collect data on our asset and system performance through real-time amperage meters on pumps and fans, through our Pipe Sleuth program, parts replacement, work order ranking reports defined by criticality and age, labor costs to capture time spent on proactive and reactive work, and to risk monitoring. We also contract with a third-party, internal auditor as well as go through a continuous, internal risk assessment, review and audit process. Going forward, we are focusing on further incorporating analytics into day-to-day O&M, incorporate Building Information Modeling (BIM) capabilities, and develop abandonment and asset condition strategies.

Protecting against the current and future cybersecurity risks

Although DC Water's primary infrastructure is built out of steel and concrete, the functionality of all assets relies on an advanced network of communication systems that run and operate our assets. As such, we rely heavily on that communications network to deliver our services to our customers and need to protect its integrity and functionality to protect our customers and control our risk of system manipulation.

That is why we have integrated cybersecurity best practices from not only the water sector, but from the entire utility industry to safeguard our system as best as possible. We follow the National Institute of Standards and Technology's (NIST) Framework for Improving Infrastructure Cybersecurity to govern our cybersecurity methodology, being the first water utility to fully adopt the standard. Our compliance with NIST is verified by external auditors and revolves around their cybersecurity lifecycle of Identify, Protect, Detect, Respond, and Recover. We have created a real-time continuous assessment program that complements the NIST framework called CDM2 that dynamically monitors, analyzes, detects, and mitigates cyber



threats to maintain an acceptable Cyber Security posture. CDM2 regularly leverages tools, technology, and intelligence to identify and prioritize cyber risks on an ongoing basis.

Preparing for and learning from emergency responses

In 2019, DC Water became the first utility in the nation to pursue and successfully accomplish the Emergency Management Accreditation Program (EMAP) accreditation. The accreditation process employs the Emergency Management Standard to provide emergency management stakeholders with an industry-recognized and approved criteria to assess their programs and facilitate the development, implementation, and maintenance of new preparedness, response, recovery, and mitigation programs.

In choosing to undergo the EMAP accreditation process, DC Water has demonstrated the ability to uphold national emergency management standards and maintain processes that enable continuous improvement. Upon completion of the accreditation process, the EMAP evaluation team produced an assessment report that provided the Authority with re-accreditation checkpoints, milestones for future reference, additional emphasis, and clarification on EMAP standards, and process considerations.

53 million gallons

of treated water being held in 7 storage facilities.

NIST

compliant to govern our cybersecurity methodology.

64 standards

met for DC Water to become the 1st utility to successfully accomplish an accreditation through the Emergency Management Accreditation Program (EMAP).

91%

of all audit findings from FY 16 to FY 20 have been closed.

500-year

rated floodwall being constructed at Blue Plains to provide adequate elevation and freeboard to protect against storm surges.

4 years

consecutively being named Utility of the Future in areas of Community Partnership and Engagement (2019), Watershed Stewardship (2018), Beneficial Biosolids Reuse (2017), and Energy Generation and Recovery (2016).

\$336 million

planned investment over the next 10 years in process equipment, specialized vehicles, and information technology infrastructure as well as funds for DC Water's innovation program.

\$85 million

allocated over the next 10 years to fund infrastructure maintenance and strategic repairs, strategic programs, software technology, legal, compliance, insurance, credit card fees, facilities and biosolids hauling services.

SASB Index

Sustainability Accounting Standards Board (SASB) standards are designed to identify a minimum set of sustainability issues most likely to impact the operating performance or financial condition of the typical organization in an industry. Disclosing information under the SASB standards is voluntary. This is the first year DC Water has disclosed information using the Water Utilities & Services SASB Standard. We look forward in building out our reporting metrics and will continue using SASB as relevant in the future.

SASB Code	Accounting Metric	Response, Link or Additional Information
Energy Management		
IF-WU-130a.1:		
	(1) Total energy consumed	1300 GJ at Blue Plains Treatment Facility
	(2) Percentage grid electricity	47%
	(3) Percentage renewable	53%
Distribution Network Efficiency		
IF-WU-140a.1:		
	Water main replacement rate	0.64%
IF-WU-140a.2:		
	Volume of non-revenue real water losses	45,382 thousand m ³
Effluent Quality Management		
IF-WU-140b.1		
	Number of incidents of non-compliance associated with water effluent quality permits, standards, and regulations	0 incidents
IF-WU-140b.2		
	Discussion of strategies to manage effluents of emerging concern	Please see our statement on effluents of emerging concern at www.dcwater.com/UCMR4 .
Water Affordability and Access		
IF-WU-240a.1		
	Average retail water rate for:	
	(1) residential	i. Residential: 0 - 4 Ccf : \$3.49 ii. Residential: greater than 4 Ccf : \$4.50 iii. Multi-Family : \$3.96
	(2) commercial	Non-Residential : \$4.65
	(3) industrial customers	

IF-WU-240a.2		
	Typical monthly water bill for residential customers for 10 Ccf of water delivered per month	For FY2021, the monthly residential bill for average use of 10 Ccf will be \$179.41
IF-WU-240a.3		
	Number of residential customer water disconnections for non-payment	We did not disconnect any customers in FY 21 for non-payment.
	Percentage reconnected within 30 days	
IF-WU-240a.4		
	Discussion of impact of external factors on customer affordability of water, including the economic conditions of the service territory.	Please see the Customer section of this report in the Social subsection.
Drinking Water Quality		
IF-WU-250a.1		
	Number of:	
	(1) acute health-based violations	0 violations
	(2) nonacute health-based violations	0 violations
	(3) non-health-based drinking water violations	0 violations
IF-WU-250a.2:		
	Discussion of strategies to manage drinking water contaminants of emerging concern	Please see our statement on effluents of emerging concern at www.dcwater.com/UCMR4 .
End-Use Efficiency		
IF-WU-420a.1		
	Percentage of water utility revenues from rate structures that are designed to promote conservation and revenue resilience	71.6% of revenue comes from volumetric revenue
Water Supply Resilience		
IF-WU-440a.1:		
	Total water sourced from regions with High or Extremely High Baseline Water Stress, 0 m ³ , 100% purchased from Washington Aqueduct	0 m ³
IF-WU-440a.2:		
	Volume of recycled water delivered to customers	0 m ³
IF-WU-440a.3:		
	Discussion of strategies to manage risks associated with the quality and availability of water resources	Please see the Water and Resource Management section of this report

Network Resiliency and Impacts of Climate Change

IF-WU-450a.1

Wastewater treatment capacity located in 100-year flood zones	2.5 million m ³ per day
---	------------------------------------

IF-WU-450a.4:

Description of efforts to identify and manage risks and opportunities related to the impact of climate change on distribution and wastewater infrastructure	Please see the Risk Management section of this report.
---	--

Activity Metric

IF-WU-000.A

Number of:

(1) residential customers:

for water	106,799 customers
for wastewater	108,964 customers

(2) commercial customers:

for water	9,131 customers
for wastewater	11,305 customers

(3) industrial customers:

for water	0 customers
for wastewater	30 customers

(4) other customers:

for water	10,531 customers
for wastewater	12,165 customers

IF-WU-000.B

Total water sourced, percentage by source type	158,000 thousand m ³
Percentage from purchased water	100%

IF-WU-000.C

Total water delivered to:

(1) residential	18,747 thousand m ³
(2) commercial	25,762 thousand m ³
(3) industrial	N/A
(4) all other customers	46,411 thousand m ³

IF-WU-000.D

Average volume of wastewater treated per day, by	
Sanitary/Combined	1,147,000 m ³

IF-WU-000.E

Length of	
(1) water mains	2,100 km
(2) sewer pipe	3,200 km





DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
1385 CANAL STREET SE, WASHINGTON, DC 20003



printer, please place
FSC logo here

