CCO water is life[®]

2018 ANNUAL REPORT

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New DC Water CEO David L. Gadis

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DC Water's HQO building

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY





TOP STORY DC Water's New CEO

2018 was a year of transition for DC Water. In May, following a nationwide search that attracted more than 100 candidates, the Board of Directors selected David L. Gadis as the fourth Chief Executive Officer to lead the Authority.

David came to DC Water with impressive credentials and more than 60 years of family lineage in the water industry. David launched his own career at the Indianapolis Water Company as a summer student helper performing valve and hydrant maintenance, and he rose through the ranks to become the company's first African American CEO. Later he served as Executive Vice

President of Veolia North America where he led North American business development operations.

When he took the helm of DC Water, David thanked the Board of Directors "for entrusting me to lead America's gold standard water and wastewater utility." Still, despite its stature and success, David has no intent to let the organization rest on its laurels. He has already charted an ambitious course forward in *The Blueprint*, our new strategic plan, with a new vision, refreshed values and six key programs that will drive positive change and focus everyone's efforts over the next two years.



"This is without a doubt the best utility,

Leading DC Water is a dream job. This utility's brand recognition across the country and around the world is second to none in the industry, and what I have found in my first few months is that reputation is well-deserved. As you will see for yourself in the pages of this Annual Report, DC Water is doing great work serving the diverse needs of our customers, exceeding regulatory requirements and breaking new ground with ingenuity and innovation.

Being among the best at what we do, though, doesn't mean we can't aim even higher. That is my challenge to our team and one I know they will embrace. I have been thoroughly impressed with the caliber and character of our workforce and I already know working beside them is going to be one of the most rewarding aspects of leading this organization.

My pledge to our employees is to set them up for success. What I have heard from them is that they want more support, more training, more opportunities for career advancement. We can and will do that. Breaking down silos and promoting a One DC Water culture will also allow us to better serve our employees and our customers.

It is my goal to make the DC Water brand as strong locally as it is beyond our home communities. To that end, we will improve our core operations, the customer experience and our standing in the District. I am extremely excited about the work ahead and confident that when we report back to you in a year there will be substantial progress in meeting our strategic plan.

DAVID L. GADIS CHIEF EXECUTIVE OFFICER

not only in North America, but in the world. The reason is the people who work here."



Chairman's Message

Last year DC Water rose to the challenges of major transition, emerging with its reputation as the world's premier water and sewer utility fully intact. It's been an honor to preside over the board of this remarkable institution at this pivotal time.

The first order of business was navigating through the departure of our esteemed former general manager George Hawkins and the selection of David L. Gadis as DC Water's new leader. A seasoned consultant to the nation's municipalities and the former CEO of Veolia Water Indianapolis, Mr. Gadis brings a proven commitment to excellence in utilities management and underground infrastructure.

Soon after hiring Mr. Gadis, we opened the first seven-mile segment of the Anacostia River Tunnel system to keep combined sewer overflows from entering the Anacostia River during major rain events. By September, the tunnel had kept nearly 3 billion gallons of polluted water out of the river, exceeding projections by achieving an 88 percent capture rate in its first six months of service.

High costs accompanied our revolutionary stormwater management system, and in response DC Water has tackled the issue of maintaining affordable rates. Working with Mayor Muriel Bowser and the Council of the District of Columbia, our board approved financial assistance for customers who are disproportionately affected by impervious surface charges to fund the Clean Rivers tunnel project.

A hallmark of DC Water is the continuous innovation that provides safe, environmentally friendly, and efficient water services to nearly 700,000 District residents as well as the 1.6 million Maryland and Virginia residents who depend on our wholesale wastewater treatment services. I'm proud of our record in leading the nation — and the world — in developing and adopting best practices in water management.

Im Well

TOMMY WELLS BOARD CHAIRMAN

2018 ANNUAL REPORT

11 PRINCIPAL AND 11 **ALTERNATE BOARD MEM-**BERS GOVERN DC WATER

The DC Water Board meets monthly at the Blue Plains Advanced Wastewater Treatment Plant. Board members are appointed by the Mayor of the District of Columbia. Currently, the Board has seven standing committees:

Audit Nicholas Majett, Chair

DC Retail Water & Sewer Rates Rachna Butani Bhatt, Chair

Environmental Quality & Sewerage Services James Patteson, Chair

Finance & Budget Timothy Firestine, Chair

Governance Ellen O. Boardman, Chair

Human Resources & Labor Relations Bradley Frome, Chair

Strategic Planning Tommy Wells, Chair

PRINCIPAL BOARD MEMBERS

Tommy Wells, Chairman District of Columbia Director, Department of Energy and Environment

Ellen O. Boardman District of Columbia O'Donoghue & O'Donoghue LLP, Partner

Rachna Butani Bhatt District of Columbia HRGM Corporation, Director

David Franco District of Columbia Principal, Level 2 Development

Emile Thompson District of Columbia Assistant United States Attorney for the District of Columbia

Timothy L. Firestine Montgomery County, MD Chief Administrative Officer

Bonnie Kirkland Montgomery County, MD Assistant Chief Administrative Officer

Bradley Frome Prince George's County, MD Economic and Development and Public Infrastructure Assistant Deputy Chief Administrative Officer

Nicholas Majett

James Patteson Fairfax County, VA Department of Public Works and Environmental Services Director

MEMBERS

Krystal J. Brumfield District of Columbia President and CEO of the Airport Minority Advisory Council

District of Columbia Church, Pastor

Ivan Frishberg District of Columbia Sustainability Banking, Amalgamated Bank, First Vice President

Anthony Giancola District of Columbia, Retired

Howard C. Gibbs District of Columbia, Retired

Jed Ross

Patti Bubar Montgomery County, MD Acting Director of the Department of Environmental Protection

Prince George's County, MD Chief Administrative Officer

ALTERNATE BOARD

Reverend Dr. Kendrick Curry Pennsylvania Avenue Baptist

District of Columbia, Chief Risk Officer

Fariba Kassiri Montgomery County, MD Assistant Chief Administrative Officer

Lavinia Baxter Prince George's County, MD Special Assistant to the Deputy Chief Administrative Officer for Public Infrastructure

Adam Ortiz Prince George's County, MD Department of Environmental Programs, Director

Sarah Motsch Fairfax County, VA Department of Public Works and Environmental Services, Engineering Support, Branch Chief

EXECUTIVE TEAM

David L. Gadis CEO

Matthew Brown Executive Vice President Finance and Procurement

Roger E. Brown, Jr. Acting Executive Vice President People and Talent

Armon Curd Executive Vice President Customer Experience

Mustaafa Dozier, Esq. Chief of Staff

Biju George Executive Vice President Operations and Engineering

Wayne Griffith Executive Vice President Performance

Maureen Holman Executive Vice President Administration

Gregory Hope Interim Executive Vice President Legal Affairs

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A Blueprint for a Better DC Water

Our Vision for the Future:

We will be known for superior service, stewardship and ingenuity to advance the health and well-being of our diverse communities and workforce.

THE BLUEPRINT

DC Water is in the final stages of completing The Blueprint, a refresh of the Authority's Strategic Plan. The existing plan, Blue Horizon 2020, was facing a diverse set of stakeholders. initially adopted in 2013 and last updated in 2015. Since that update, the Authority has faced Using the feedback collected from these stakea convergence of global, national and local trends holders, the Authority redefined our vision as an and market forces that have altered our operating organization and the values that drive our environment and presented new fiscal challenges. commitment to service and performance. We have also realigned our organizational structure to improve collaborations across and within While nearly every major city on the east coast faces rising costs stemming from aging water infrastructure, DC Water also must fund \$2.7 billion synergies and operational efficiencies.

departments while also identifying potential new in projects to restore the District's waterways, under the terms of a consent decree with U.S. EPA This Annual Report is organized into five sections and the Department of Justice. Additionally, the that relate to the key components of our employeefederal regulatory environment remains uncertain, created Vision Statement: We will be known for and could create additional financial burdens in superior service, stewardship and ingenuity to the years ahead. advance the health and well-being of our diverse communities and workforce.

Recognizing these looming challenges, and with a finite set of fiscal resources, the Authority sought As you browse through this document, we invite input from a wide range of stakeholders, including you to look a little closer at our priorities and points Board members, Mayor Bowser, D.C. Council of emphasis, and see a realigned, reinvigorated members, hospitals, schools, residential customers, and refocused DC Water.

union leadership, and employees to inform our planning process. The Authority understood that to best serve our community, we first had to listen to, and understand, the concerns and challenges

Service

We see every engagement with our customers as an opportunity to deliver an exceptional experience. Put their needs first through superior service and better customer satisfaction will follow.

A NEW WAY OF THINKING

Albert Einstein once said, "The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking." At DC Water, we changed our thinking this past year to put the customer first. We created a new position called Executive Vice President, Customer Experience to head up the service areas that most directly impact the customer experience, namely Customer Care, Marketing and Communications and Information Technology. Armon Curd was named to the post.

Curd says he will first assess what we do well and look for opportunities for improvements. He wants to look beyond the normal benchmarks of a call center such as average speed to answer the phone and average time to resolution. "I want to map the customer journey," he says, "to make sure we are doing what works for the customer."

For instance, when customers contact DC Water with problems, questions or to pay a bill, in what ways can the experience be made easier? By seeing where in the process customers are not satisfied, the Authority can make improvements. It could be a change in the automated system or adding features such as a callback option. Similar analyses can be made for social media and website communications. "I respect our customers and want to build trust. That means we must respect customers' time and their communication preferences."

Another change in the department created a specific team to manage escalations of customer issues. This team streamlines the process and shortens the time to resolution while providing communication and documentation.

The staff spent the year training on the new system, custom tailoring reports and working with customers to resolve issues. The new CIS enables DC Water staff to better analyze information, recognize trends and provide enhanced customer service. The team is poised to enter 2019 with new systems, fresh data and a new way of thinking.



Service continued

DC WATER: AT YOUR (COMMUNITY) SERVICE

Community Outreach serves as one of our most critical, meaningful and personable touchpoints with our customers. DC Water receives nearly 200 requests each year to attend community meetings and events. We strive to be present at events that align with our mission and allow us to engage with residents about pertinent projects and services, as well as send them home with a dose of, "Wow! I never even thought of that!"

Our Community Outreach Program has attended more than 300 events since its inception eight years ago. 2018 marked a record year, with DC Water supporting an impressive 77 community engagement events between February and October. To keep up, we recruited a team of ambassadors from throughout the enterprise to assist our Outreach team with covering events. In its first year, the Ambassador Program enlisted the services of 12 DC Water employees from various departments. This interdisciplinary team has utilized its diverse skillsets to address customer needs and deliver much-needed hydration in all weather and in every Ward of the District.

Community outreach also includes targeted efforts related to construction projects and students in the District. During the 2018 fiscal year, the team responded to hundreds of calls and emails related to ongoing construction projects throughout the city, attended dozens of community, civic association and Advisory Neighborhood Commission meetings and hosted the Authority's first infrastructure forum. Held in September, the forum was designed to reach a broader audience and to better inform and educate residents about the infrastructure initiatives impacting their communities. Meanwhile, the education outreach program provided hands-on lessons, field trips and environmental education events to more than 2,000 students in our service area during the school year.

As we move into a new era in our quest to provide high-quality water services in a safe, environmentally friendly and efficient manner, it is our hope to extend ourselves throughout our service area in even more effective and innovative ways.

Interested in getting us out to your community event? Requests are accepted each year from late March to early September at **dcwater.com/event-request**.

Meet our most beloved ambassador, Wendy the Water Drop!

It is Wendy's mission to embody our slogan that "Water is Life."

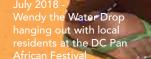
First Appearance in 2009

Wendy shared the limelight until Wendell's retirement in 2016. Wendy now serves as the sole mascot for the Authority.

Favorite Appearance in 2018

2018 "Everyone's Water Tour" bringing water and environmental education to diverse audiences around the District.

4th Annual Chinatown Community Festival / DC Pan African Festival / International Colombian Festival / MPD's 35th Annual National Night Out / 3rd Annual Taste of the World Festival / 49th Annual Fiesta DC Festival / 3rd Annual Fiesta Del Rio Anacostia





Service continued



AT THE READY

Dusti Lowndes is a fifth-generation Montanan whose expertise in public health, water systems and environmental quality led her to volunteer with the American Red Cross. When Hurricane Katrina devastated the gulf coast in 2005, she was so moved by the sheer desperation of those in New Orleans that she left her husband and children behind to volunteer in the devastated city. There, she spent a month putting her public health knowledge to use solving the problems of long-term housing and safe drinking water. In the short term, she helped survivors locate shelters based on the availability of water and supplies. She says of the experience, "They really don't prepare you for the struggle for survival that you will go through. Until you face it, you don't know what it's like to scrounge for basic necessities like food, water and gasoline."

It was a life-changing move that pointed her to a career in emergency management and ultimately led her to DC Water. "I was inspired by the good in people. It was a massive humanitarian effort

and everyone pulled together, using creativity to meet the challenges. I see that same spirit at DC Water when we activate our Incident Management Team (IMT). People across all departments come together with the knowledge, experience and willingness to successfully work through a crisis."

Dusti is now at the helm of DC Water's Office of Emergency Management. In the past year, her office activated the IMT for three severe weather events, three planned special events and eight emergencies.

"People across all departments come together with the knowledge, experience and willingness to successfully work through a crisis."

DUSTI LOWNDES DIRECTOR, EMERGENCY MANAGEMENT

PUT TO THE TEST

In January 2018, the region experienced severe cold weather that wreaked havoc on the water distribution system. On January 3, DC Water quickly activated the emergency plan and Incident Management Team (IMT), including representatives from The District's Homeland Security and Emergency Management Agency (HSEMA) and Department of Public Works (DPW). The Authority brought in more contractor crews and pulled staff from other areas to increase capacity. At its peak, there were 21 crews in the field. Everyone played a part—investigations, valves, meter shop, communications, procurement, emergency management, safety, security, and other support staff. Over 11 days, teams worked day and night repairing more than 150 broken water mains and service lines. For perspective, DC Water averages 400 water main breaks in a year. The Command Center fielded 4,545 calls during the same period, mostly for water main or service line breaks and internal pipes that had frozen or broken. Said one DC Water worker, "This time of year is playoff time for us. Our intensity is up and we come together as a team. It's like a run to the championship."

In July, DC Water's IMT again responded to an emergency—this time an issue in a pumping station that resulted in a Boil Water Advisory for roughly 34,000 District residents. The team sprung to action working around the clock to identify the impact area, collect water samples, coordinate with partner response agencies, plan critical meetings and contingencies, and communicate with the public.

The call volume and website traffic overloaded DC Water's systems. Some solutions and improvement plans were deployed then, and others immediately following the incident. Public health is our most critical mission and we want the public to know as quickly as possible if there are precautions or concerns. The IMT allows for that

January Cold Snap By the Numbers

150

THE NUMBER OF BROKEN WATER MAINS REPAIRED OVER 11 DAYS

400

THE AVERAGE NUMBER OF WATER MAIN BREAKS A YEAR



THE NUMBER OF CALLS FIELDED BY THE COMMAND CENTER

immediate collaboration and information sharing to quickly inform and resolve an issue.

Dusti is passionate about the camaraderie of the staff and understands the critical role that DC Water has in providing reliable and resilient water services to DC and throughout the National Capital Region.

Stewardship

We take seriously our responsibility to protect the health and well-being of our customers. We're equally committed to the environment and cleaning up local waterways for the benefit of current and future generations.

ENSURING THE BEST

Every drop of water in the District of Columbia the water used for brewing a cup of coffee, for fighting fires, and for operating hospitals—is monitored around the clock by a dedicated team of water quality experts. The Department of Water Quality collects thousands of samples from across the city's distribution system each year. In 2018, DC Water collected more than 6,500 water samples and conducted 40,000 tests to ensure healthy, high-quality water reaches everyone.

The water that flows from your faucet begins its journey in the Potomac River. The federally owned Washington Aqueduct collects untreated water at Great Falls and Little Falls, where it is cleaned and fortified at two state-of-the-art facilities to meet the water quality standards set by the Safe Drinking Water Act. From there, DC Water distributes drinking water through 1,100 miles of pipes to homes, hospitals, schools and businesses. Dedicated water quality experts and technicians monitor tap water quality as it flows through the system, testing water safety, and ensuring tap water is of the highest quality. "The treated drinking water in our region is among the best in the world," says Dr. Anjuman Islam, Water Quality Manager at DC Water. "Tap water is enhanced with beneficial compounds that improve public health and protect from potential contamination. It's our job to make sure water remains safe and healthy for all of our customers."

DC Water provides more than 100 million gallons of clean safe drinking water to customers in Washington, DC every day. DC Water's highest priority is protecting the health and safety of our customers. DC Water voluntarily sets goals to guarantee drinking water quality, exceeding the standards set by the Safe Drinking Water Act and enforced by the U.S. Environmental Protection Agency (EPA).

"It's our job to make sure water remains safe and healthy for all of our customers."

DR. ANJUMAN ISLAM WATER QUALITY MANAGER





Stewardship continued

A POSITIVE IMPACT

DC Water's commitment to the environment – and our support of the local economy – was demonstrated in 2018 with the long-anticipated opening of the Anacostia River Tunnel System. We placed the first seven-mile segment into service in March and it immediately started to pay dividends, for the river, the District and the region. In the first six months alone, the tunnel kept nearly three billion gallons of combined sewage overflows out of the Anacostia, as well as 150 tons of trash that otherwise would have ended up in the river, and eventually the Chesapeake Bay.

The fact that the tunnel system overperformed during one of the rainiest summers on record in the city is proof of the value of the DC Clean Rivers Project. The massive \$2.7 billion investment is also validated by the changes taking place in the river and along its banks. The water quality is improving, and it's not so farfetched anymore to think of someday having a swimmable, fishable river again.

People are already coming to the river, to live, to work, for recreation or an evening out. In addition to Nationals Stadium and the brand new Audi Field, a flurry of new mixed-used development will bring thousands more residents and employees to the waterfront. Our own new administrative headquarters building is situated on the west side of the river. 2018 was celebrated as the Year of the Anacostia to honor the river's history and acknowledge the progress being made to clean it up, including this tunnel project. We are proud of the role we are playing in that revitalization of the river. A long neglected natural resource is on the rebound, providing great benefits and opportunities for current and future residents.

A LASTING LEGACY

Christopher Allen was respected and well-known in the engineering world, an industry veteran with 47 years of experience on large construction projects. So, it's only fitting that we named our latest tunnel boring machine after Chris, the Assistant Director for the Clean Rivers Project who passed away last year. The Allen family was in attendance when Chris the TBM was officially named and blessed at a ceremony in June.

Before the end of the year, Chris was lowered into the ground and started mining the Northeast Boundary Tunnel (NEBT). The NEBT is the largest and final segment of the 13-mile long Anacostia River Tunnel System, which will continue the cleanup of the Anacostia River while also significantly reducing flooding in some northeast DC neighborhoods. It is a fantastic capstone to Chris Allen's career building better communities.



Stewardship continued

Green infrastructure (GI) is another key element of the Clean Rivers Project. In 2018, we completed the first GI project to significantly reduce the level of pollution to Rock Creek caused by combined sewer overflows (CSOs). Rock Creek Project A involved the construction of 77 GI facilities including bioretention (rain gardens) in planter strips and curb extensions and permeable pavement on streets and alleys. Crews also constructed two green infrastructure parks along Kansas Avenue, NW in the Brightwood Park neighborhood. A similar GI project to reduce CSO pollution to the Potomac River is now in progress.

"The green infrastructure constructed under Rock **Creek Project A has** reduced stormwater volume that contributes to combined sewer overflows into Rock Creek. It also provides local green jobs and streetscape and neighborhood revitalization in the Brightwood and Manor Park areas of the District."

> SETH CHARDE PROGRAM MANAGER **GREEN INFRASTRUCTURE CONSTRUCTION**



Natural vs Urban Environment

NATURAL ENVIRONMENT

- (Natural Ground Cover)
- 0% impervious surfaces
- Less stormwater runoff means more infiltration and groundwater recharge
- Surface water slower to reach stream or storm sewer minimizing erosion and downstream flooding
- Cooler stormwater temperatures support aquatic habitat
- Minimal pollutants (natural filtering)

URBAN ENVIRONMENT

(75%-100% Impervious Cover)

- 75%-100% impervious surfaces
- More stormwater runoff
- Faster stormwater runoff overwhelms streams and stormwater pipes resulting in erosion and potential downstream flooding
- Warmer stormwater temperatures negatively impacts aquatic life
- Higher pollutant loads (nitrogen, phosphorus, sediment) impact aquatic life
- No groundwater recharge due to limited infiltration

RAINFALL IN A NATURAL ENVIRONMENT 40% EVAPORATION 10% RUNOFF 25% SHALLOW INFILTRATION 25% DEEP INFILTRATION

RAINFALL IN AN URBAN ENVIRONMENT 30% EVAPORATION 55% RUNOFF 10% SHALLOW INFILTRATION **5% DEEP INFILTRATION**

Ingenuity

We are willing to swim against the tide in a risk-adverse industry. That means taking intelligent risks, pioneering new technology, and learning from our experiences to better serve our customers.

With an eye to improving the customer experience, DC Water embarked on a number of technology projects. First, the Authority set out to replace 90,000 small-diameter water meters in mostly residential properties. With that project underway, DC Water also converted and upgraded the Customer Information System. Together these projects improve billing and accuracy, make it easier for customers to pay, simplify usage tracking and make it easier for staff to resolve questions or problems.

METER REPLACEMENT

DC Water just completed the second year of an ambitious project to replace 90,000 mostly residential meters across the District. There are actually two devices—the meter that measures the usage and the unit that transmits that usage data to DC Water. In FY 2018, the project team replaced nearly 40,000 devices. More than 82,000 meters have been installed and the remaining 10,000 are in various states of scheduling. Most of the replacements were quick and easy, but the ones that are still outstanding are generally those that are difficult to access.

Since the project touched so many residents, April Bingham, Deputy Program Manager, knew that proactive communication was crucial. April was recruited to DC Water in 2007 for her financial expertise, initially managing the business office and walk-in payment center near Union Station. She became familiar with customer concerns through their close interaction and is able to connect the various business units together to identify areas for improvement. "In addition to formal communication channels, we wanted to get to the community level," she said. "We attended more than 24 events to help roll out the meter replacement program and prepare customers for the process." This opportunity generated a level of collaboration and education for customers, helping them understand how the new meters will help with accurate and timely billing.

All this while April was new to the role. Just before the project began, she was asked to head up meter operations on a short-term basis. "It started as a 90-day assignment. Then we launched the meter replacement project." Two and a half years and 82,765 meters later, April is embracing the role permanently. Upon reflection, she says, "I am



Ingenuity continued

grateful for the role I play in helping to improve the customer experience and helping the workflow for employees."

CUSTOMER INFORMATION SYSTEM (CIS) UPGRADE AND CONVERSION

The biggest Customer Service project a utility can undertake is converting to a new Customer Information System. DC Water tackled that at the same time as a massive meter replacement project for roughly 90,000 meters across the District.

DC Water recruited from its ranks an elite team that dedicated a year to planning, implementing and testing the new system. The group determined numerous variables and custom-tailored the application for the best customer experience possible.

The official cutover from the old Customer Information System (CIS) to the new one came on December 10, 2017, without much fanfare. As is the case with a conversion like this, there was a good deal of verifying data and accounts. Not every piece of information comes over cleanly. The ensuing period is called the stabilization period and generally takes 12 to 18 months. We got there in about six months.

The process includes solving problems, updating business processes, correcting records and working with customers through this conversion. Remarkably, we still responded to calls within 40 seconds 85 percent of the time or better, except in the month of January when we had more than 19,000, most for severe weather water emergencies.

Within the fiscal year, not only did we convert to the new system, we also upgraded the customer portal to allow property managers, tenants and other third parties to register, with owner consent, in MyDCWater. We also launched a new mobile app for added customer convenience. Along with new changes in the Customer Service Department, these new DC Water features give customers more information and ease than ever before.

LOW IMPACT TRENCHLESS TECHNOLOGY

This year, Maureen Schmelling, Director of Water Quality, presented on DC Water's industry-leading lead program to more than 26 national public health, utility, environmental and governmental organizations. The Authority's efforts establishing best practices have provided a framework that other agencies nationwide have used to implement their own lead programs.

"Our lead program is a multi-pronged process to address lead in water and remove sources of lead," says Schmelling. "We use the latest technology to ensure DC Water and our customers are bestequipped to take significant and sustained action."

DC Water was the first utility to systematically map lead service pipes and provide an interactive means for customers to identify these sources of lead. The Authority's robust lead program also includes vigilant monitoring, corrosion control, free lead testing, strategic pipe replacement, and extensive outreach.

When replacing lead pipes that connect homes to the city water supply, crews employ trenchless lead pipe replacement, a cost-cutting, innovative method that involves minimal excavation and can usually be accomplished in a single day.

Improving access to critical resources and communicating the importance of lead source removal is a key component to DC Water's strategy.

This year, DC Water distributed a bilingual mailer to approximately 12,000 customers with known lead service lines encouraging them to remove their lead lines via the Voluntary Replacement Program. More than 700 customers are now enrolled in the program.

"Our lead program is a multi-pronged process to address lead in water and remove sources of lead."

MAUREEN SCHMELLING DIRECTOR OF WATER QUALITY AND TECHNOLOGY



In addition, DC Water has worked with city leaders to address the issue of affordability for lead pipe replacement. In December, the DC Council unanimously approved historic legislation that sets up a mechanism for the city to pay the cost of some lead service line replacements. This new legislation allocates District funds to support two lead water service line replacement programs. The District government is expecting to set aside \$5 million for these programs, and the funding will be available in October 2019.

Lead service replacement program

Our Communities

We are not on an island. We are interwoven into every community and commercial corridor in the city we serve with life-sustaining water. That also means we must be good neighbors to ensure we're never an undue burden on our customers.

CUSTOMER ASSISTANCE EXPANDED, CUSTOMER ALLIANCE FORMED

Throughout the year, DC Water worked creatively to find new ways to ease the burden of rates and fees on customers. The result was a one-year break for residential customers and non-profits, funded by a \$13 million program split between the District government and DC Water. These funds will start being awarded to customers early in 2019 and will continue until the money is exhausted.

Concerns about rising water bills also led DC Water CEO David Gadis to create a "Stakeholder Alliance," a panel of city residents, members of the faith community, business owners and others to serve as a sounding board on issues relating to the authority. DC Water's government relations team helped identify and recruit 21 people to serve on the Alliance, the first time the authority has tried to systemically reach out to such a diverse group of customers. When the Alliance held its first meeting in September, it created a natural forum to discuss not just concerns about fees but to address a wide ranging set of issues.

For customers like Valerie Baron, a Ward 1 lawyer and water quality advocate, the Alliance provided an opportunity to learn more but also opened up a door to direct conversations with authority staff. In fact, at one meeting Baron went out of her way to ask questions about water quality and testing protocols in the city, but also communication and outreach – how DC Water reaches out to customers in an emergency.

The conversations opened up a window to the inner workings of the authority and provided the Alliance with an opportunity to give feedback and learn more about daily operations of a utility that's central to so many people's lives.



Our Communities continued

NEW REVENUE

The second full year of operations was also a year of change for Blue Drop, DC Water's nonprofit sales and marketing affiliate. Founded in late 2016, Blue Drop sells products and services in an effort to provide relief from rising DC Water rates. These include consulting for other utilities across the country, and marketing Bloom[™], DC Water's soil amendment product.

This year, Blue Drop completed consulting engagements for the Springfield (Mass.) Water and Sewer Commission, the New Orleans Sewerage & Water Board and Communities Unlimited (Arkansas). It also hired a full-time sales director for Bloom, expanding into new states and market segments for the first time.

In 2018, Blue Drop moved from its location in the former DC Water walk-in payment office to a new

space near the utility's nearly-completed administrative headquarters. The Blue Drop staff now consists exclusively of its own employees, having shared certain key managers with DC Water since its inception. Blue Drop also welcomed three new Board members, with DC Water CEO David Gadis serving as Chairperson.

On the horizon: Blue Drop is broadening its focus from consulting services and Bloom, to include all areas of non-ratepayer revenue activity for DC Water. Blue Drop's updated mission will be to fuel DC Water's efforts to get the most of its assets, technology and staff for the benefit of ratepayers.

"This is the year we make good on our promise," says Blue Drop president and former DC Water Marketing Chief Alan Heymann. "In 2019, Blue Drop comes out of startup mode and will make DC Water whole for its investment, beginning to pay dividends for the first time."

"In 2019, Blue Drop comes out of startup mode and will make DC Water whole for its investment, beginning to pay dividends for the first time."

ALAN HEYMANN BLUE DROP PRESIDENT



Our Communities continued

DC Water ended fiscal year 2018 with excellent financial performance. The results included strong liquidity, solid operating revenues with tight control over expenses, positive budget to actual results. The Authority met or exceeded fall financial targets and complied with Board policies and bond covenants.

HIGHLIGHTS

- Operating revenues increased by \$41.3 million to \$684.5 million, or 6.4%, primarily due to the retail rate increase of 5.0%, a 13.2% increase in the Clean Rivers Impervious Area Charge (CRIAC), and a 20.0% increase in wholesale waste water charges offset by a decrease in other revenues.
- Operating expenses increased by \$31.3 million to \$439.5 million, or 7.7%, due to increases in depreciation expense, personnel services, and contractual services offset by a decrease in chemicals, supplies, and small equipment.
- Capital assets, net of depreciation and amortization, increased by \$416.8 million to \$7.0 billion, or 6.4%, as a result of capital additions of \$556.5 million offset by depreciation and amortization of \$115.5 million and capital disposals of \$24.3 million. Capital additions incurred in 2018 were in line with the Authority's approved 10-year capital improvement program.
- Current assets increased by \$44.3 million to \$647.2 million, or 7.3%, primarily due to a \$18.5 million increase in restricted cash and investments, a \$19.1 million increase in cash and cash equivalents, an \$11.8 million increase in customer receivables, and a \$3.3 million increase in receivables from the Federal government offset by an \$11.4 million decrease in receivables from other jurisdictions.

- The Authority's net position increased by \$187.4 million to \$2.1 billion, or 9.9%, as a result of current year operations and capital contributions.
- The Authority's long-term debt, including current maturities, increased by \$306.1 million to \$3.5 billion, or 9.5%, primarily due to the \$300.0 million bond issuances described below:
- Issued \$100.0 million of 2018 Series A and \$200.0 million of 2018 Series B senior lien revenue bonds with fixed interest rates at 5.0%. The 2018 Series A green bonds and the 2018 Series B bonds mature in 2050. Net proceeds from the bond issuance totaled approximately \$348.6 million, including \$2.0 million of underwriter's discount and cost of issuance.
- Long Term Credit ratings of Aa1/AAA/AA and Short Term Credit Ratings of P-1/ A-1+/ F1+ were reaffirmed by Moody's, S&P, and Fitch rating agencies.
- Government Finance Officers Association awarded DC Water with a Certificate of Achievement for Excellence in Financial Reporting and the Distinguished Budget Presentation Award.
- DC Water received its 22nd consecutive unmodified audit opinion on its financial statements.

SEPTEMBER 30, 2018 AND 2017 (IN THOUSANDS)

Condensed Statements of Net Position

Current assets Capital assets, net Non-current assets Total assets

Deferred Outflows of resources

Current liabilities Long-term debt outstanding

Long-term liabilities Total liabilities

Net investments in capital assets Restricted Unrestricted Total net position

Condensed Statements of Revenues, Expenses and Changes in Net Position

Operating revenues Operating expenses Net non-operating revenues (expenses) Change in net position before capital contributions Capital contributions Change in net position

Net position - beginning of year Net position - end of year

Condensed Statements of Cash Flows

Net cash provided by operating activities Net cash used in capital and related financing activit Net cash used in investing activities

Net increase in cash and cash equivalents

Cash and cash equivalents - beginning of year Cash and cash equivalents - end of year

2017	2018
\$602,959	\$647,224
6,543,100	6,959,868
114,754	210,691
7,260,813	7,817,783
69,946	66,734
461,771	477,324
3,193,727	3,494,610
1,777,421	1,827,382
5,432,919	5,799,316
1,655,867	1,808,622
33,276	38,907
208,697	237,672
\$1.897.840	\$2.085.201

	2018	2017
	\$684,502	\$643,169
	439,470	408,131
	(88,090)	(64,553)
	156,942	170,485
	30,419	24,066
	187,361	194,551
		1,703,289
	to 005 004	£4 007 040
	\$2,085,201	\$1,897,840
	\$2,085,201 2018	\$ 1,897,840 2017
5	2018	2017
5	2018 \$319,693	2017 \$283,305
S	2018 \$319,693 (181,074)	2017 \$283,305 (246,998)
s	2018 \$319,693 (181,074) (72,448)	2017 \$283,305 (246,998) (27,424)
5	2018 \$319,693 (181,074) (72,448) 66,171	2017 \$283,305 (246,998) (27,424) 8,883

Our Workforce

We are committed to seeing that our team thrives. That means treating every employee with respect and creating a culture that cultivates trust, recognizes excellence, embraces different perspectives and encourages a healthy work – life balance.

LEADING BLUE

In 2018, we renewed our focus on our most important asset, our employees. While the men and women at DC Water – who ensure water comes out of your tap, or treat that water after you use it, or perform another critical function – have a strong sense of purpose in their work, they have told us they don't always feel valued. Some also worry there aren't enough opportunities or support to advance their careers.

We have taken that feedback to heart and made improving the employee experience a key goal of our new strategic plan. It starts with revamping how we on-board new hires. Instead of first day orientation focused on transactions around new hire paperwork and benefits, we treat on-boarding as a year one experience. From the first day orientation, our Human Capital Management team regularly checks in with new employees and their supervisors throughout the first year to ensure their tenure at DC Water gets off on the right foot, they're supported with the tools, direction and feedback necessary to excel in their position, and most importantly DC Water continues to provide a challenging and enriching employee experience.

The same approach drives Advancing Blue, our revamped performance management system created to deliver superior results through a leadership culture of coaching. While some major corporations made news in recent years by doing away with annual performance evaluations, we opted to reimagine our system and ask more of our leadership team. A culture of coaching – with timely and ongoing feedback between supervisors and employees throughout the performance cycle – helps ensure goals are met and there are no surprises at the year-end evaluation.

Changing the employee experience and performance management system demanded that we change our leadership model. That's why we created **Leading Blue**, a comprehensive training program to equip leaders at all levels in the





Our Workforce continued

Authority with eight core competencies we believe are critical to success as leaders. The goal is to enhance our leaders' ability to get the most out of their teams, make them more self-aware and maximize their ability to deliver superior results.

"We believe you get better results when you create a team culture where you get better feedback, buy-in and engagement from people," explains Mustaafa Dozier, DC Water's Chief of Staff.

The Leading Blue program also supports the CEO's goal of breaking down silos and barriers between different departments. "They leave here knowing who to reach out to," says Keith Lindsey, Manager of Talent and Development. "Their learning curve has been decreased because now they know all the players. For instance, you'll get a guy in operations who's trying to get something done in recruiting, so now they know how to connect."

Over the past year DC Water has completed a year-long training for two 12 member cohorts. The next step is to launch a training program focused on leaders who spend the most time with, and have the most impact on, our front-line employees. **Leading Blue Line of Sight** will be offered to all frontline managers, supervisors and foremen beginning in 2019. Additionally, we will launch our first Senior Leadership executive coaching program focused on all department directors and other senior leaders.

SAFETY IN INNOVATION AND INNOVATION IN SAFETY

Safety is priority one here at DC Water, as our most important asset is our people. For this reason, the Department of Safety operates as one of the vital arms of our operation. This unit is modeled on federal regulations and industry best practices for accident prevention and safety management.

Given the nature of our work, protecting the employees at the Authority is no easy task, which warrants a variety of programs to creatively address the needs of our diverse workforce. The Safety department engages in Authority-wide campaigns, such as our Good Catch Program, which educates our employees on the implications of safety in their daily job functions. Good Catch aims to capture, document and investigate near-miss incidents, while recognizing employees who take seriously their role in creating a safer DC Water. The Department also celebrated 4 years of success with the annual Safety Video Contest in 2018. This contest brings the creativity of teams of DC Water employees and contractors alike to the forefront and provides much-needed insight on how our workforce views safety in the enterprise.

Alongside their other initiatives, the Department hosts its annual signature program: Safety Day. This observance occurs each summer and represents the amalgamation of all the efforts of the Department. The Day provides a fun avenue for employees to engage with the Safety Program and takes on a fresher, more grand scale year-overyear. Tameca Miles, chair of the event since 2012, notes that it is a great way to collect employee feedback in an informal setting. "We have plans to broaden our impact on employees by extending the Safety Day celebration into a multi-day, multi-location event. Safety Week will provide an opportunity to engage even more of Team Blue in a cause that has found its rightful place in our organizational values."



ADANGER lash And Shock An employee opening the control panel to access the switchgear to perform inspection, maintenance and test of the equipment wearing personal protective equipment (PPE)



Our Workforce continued

"Looking ahead to 2019, the Department plans to utilize technology to standardize our practices across the enterprise and increase the efficiency of our preventative measures," says Robert Wells, Manager, Construction Safety. It is obvious that the Department of Safety at DC Water possesses a strong commitment to the well-being of our workforce, which helps to empower us to deliver world-class service and strive for excellence in fulfilling our core mission.

DC WATER WORKS PROGRAM

For several years now, DC Water has looked for new and creative ways both to train and employ District residents so they have a bright future regardless of where they work. In our DC Water Works program, we have hit the sweet spot – providing skills and education to District residents but also helping many men and women find a direct path to a job.

DC Water Works facilitated the employment of 99 people in FY 2018. We also maintain a program to train older residents with no job skills to help them get back into the workforce. Our Water Works programs also include an innovative class that teaches unemployed residents how to drive a large truck and will assist them with getting a Commercial Driver's License, or CDL.

The authority also manages a training program within our Facilities Department. Participants receive training in a number of general and tradespecific areas. This year there are 10 enrollees still in the program which is scheduled to end in February 2019.

Although DC Water has multiple programs to help District residents find work, our most innovative is the green infrastructure training initiative. Through a partnership with outside groups, including for a time the University of the District of Columbia, we are training young men and women to build, inspect and maintain green infrastructure. The majority of the participants in the program have come from Wards 7 and 8, where the city has a higher unemployment rate.

Green infrastructure is an approach to stormwater management that protects, restores and mimics the natural water cycle. At DC Water, we've incorporated it into our long-term plan (called the DC Clean Rivers Project) for restoring and cleaning local waterways.

Raymond Coates, a lifelong District resident and graduate of the green infrastructure training program, is now gainfully employed by a local contractor. He credits the program with helping him find a job and new career.

By the Numbers

Total number of new hires: 99 people

Percent of user jurisdiction hires: 92%

Percent of DC hires: 67%

13 District residents enrolled in CDL Training

10 graduated and are currently working

-R) Carlton Ray, Director, Clean Rivers Project and ond Coates, a graduate of the green infrastructure nd program



Our Workforce continued



(L-R) Constance Schwartz, CEO David Gadis and CFO Matt Brown taking a tour of HQO

HQO

In 2013, the DC Water Board of Directors approved use of existing DC Water land and facilities. That plan includes the construction of the new headotherwise would have been spent to lease office space and to expand existing facilities.

The consolidation of staff not only allows the campuses scattered across the city, enhancing

from every part of the Authority," says Nija Ali, who plan ground-breaking innovation, the crews Customer Service team dedicated to helping our customers—the people who make DC Water a truly making us one DC Water."

connection: the proximity to sister agencies and to DC Water and enhance interaction between

restaurants and local small businesses. The Capitol Councilmember Charles Allen, and the Advisory

Pumping Station, adjacent to the historic Main that date back more than 100 years.

HQO is surrounded by historic infrastructure that has helped our city thrive for over a century, and at the same time, the new headquarters is a testament standing as one of the most efficient and environmentally-sustainable buildings in the region.

"...the people who make DC Water a world-class utility will be united under one roof."

NIJA ALL



LEED CERTIFIED The design and construction has attained a Platinum LEED Status

↓90%

IN WATER USE Rain water will be captured on-site and used for non-potable water needs and irrigation

J48%

IN ENERGY USE Alternative energy will be supplied by an innovative sewer heat recovery system

J 42%

IN GREENHOUSE GASES Due to the use of sustainable strategies

Raising the Bar for the Water Sector

Like many at DC Water, Dr. Chein-Chi Chang is passionate about public service. "We are all part of this society and we should be contributing to the betterment of our communities," he said, reflecting on his 19 years of service in the Engineering Department. When his children were young, he often saw what was wrong with their education or extracurricular activities until he realized that he had the power to be the change he hoped for. "I started volunteering and found it personally rewarding, but also fulfilling a duty to society."

Dr. Chang was honored with The Bedell Award by the Water Environment Federation (WEF) in 2018. This award was established to acknowledge extraordinary personal service to a WEF Member Association. The award is named for Arthur Sidney Bedell, WEF's second president, for his long devotion and service to what is now the New York Water Environment Association. He was Chief of the Bureau of Sewage and Waste Disposal of the New York State Department of Health.

Dr. Chang is quick to pitch in and even traveled to Haiti after the 2010 earthquake. There he inspected damaged buildings for safety and mapped the water distribution system by walking the length of it and using GPS to determine the geographic coordinates. There were no records of the distribution system prior to his visit.

His committee involvement is too long to list but includes serving as CWEA President in 2015-2016 and President Elect the previous year. At WEF, he



Chairs the Watershed Management Committee and serves on committees for Collection Systems, Stormwater, Public Communication and Outreach, and WEFTEC program planning, among others. He also earned the inaugural WEF Volunteer Service Recognition in 2017.

Dr. Chang is but one shining star at DC Water. Individuals, teams and the Authority as a whole garnered the following awards this past year.

DC WATER

For the third straight year, DC Water was named a Utility of the Future through a joint NACWA/ WEF recognition program. The Utility of the Future concept encourages the nation's water systems in the transformation of operations through innovation and technology. The Utility of the Future is a model for utilities of all sizes to achieve more efficient operations, enhanced productivity, and long-term sustainability. DC Water met stringent requirements in the category of Watershed Stewardship to earn the recognized in the areas of Energy Generation and Recovery, and Beneficial Biosolids Reuse.

HQO

DC Water's new headquarters building earned Honorable Mention in the Spaces, Places and Cities category of Fast Company's 2018 Innovation by Design Awards program. This program celebrates trailblazing design in business. All the honorees share one thing: a commitment to solving problems, no matter how big or small, as simply and as beautifully as possible. The highly competitive program received 2,800 submissions across 16 categories.

CLEAN RIVERS

Engineering News-Record (ENR) named the Anacostia River Tunnel project a Global Best Project Award - Award of Merit in Water/ Wastewater. This was an international competition and a high honor for the Clean Rivers Project.

Engineering News-Record (ENR) - Mid-Atlantic Best Project Awards - Award of Merit Water/ Wastewater for the Anacostia River Tunnel

The DC Clean Rivers Project team was awarded the International Tunneling Association (ITA) Tunneling and Underground Space Award -Sustainability Initiative of the Year

American Shotcrete Association (ASA) 2018 Outstanding Shotcrete Project of the Year in the Underground Category - Tiber Creek Sewer Repair

Disputes Review Board (DRB) Foundation -Excellence in Dispute Avoidance and Resolution Award

EMERGENCY MANAGEMENT

The Office of Emergency Management (OEM) received a certification in Business Continuity Management System ISO 22301:2012.

In 2018, OEM received "Conditional Accreditation" as an accredited Emergency Management Program through the Emergency Management Accreditation Program (EMAP) and is seeking full accreditation by April of 2019. DC Water is the first water utility in the nation to do so.

FINANCE, BUDGET & PROCUREMENT

The Government and Finance Officers Association (GFOA) awarded DC Water the Distinguished Budget Presentation Award, for the fiscal year beginning October 1, 2018

Government and Finance Officers Association, recognized DC Water with a Certificate of Achievement for Excellence in Financial Reporting, for the year ended September 30, 2017

FLEET

DC Water was named to the National Association of Fleet Administrators 100 Best Fleets, coming in at number 87.

WASTEWATER

DC Water's bees made the honey that won "Best Tasting Honey" at the DC State Fair.

DC Water received its 6th Platinum Award recognizing 100 percent compliance with discharge permits over a consecutive five-year period. *Platinum Awards* are given to facilities with a consistent record of full compliance for a consecutive five-year period. If 100 percent compliance is maintained beyond the initial award, *Platinum Award* status is continued. Should 100 percent compliance not be maintained, member agency facilities must receive four consecutive *Gold Awards* to again be eligible for another *Platinum Award* in their fifth year of compliance.

Chein-Chi Chang was awarded the WEF Bedell Award. This award acknowledges extraordinary personal service to a WEF Member Association.

Fleet Director Tim Fitzgerald received the 2018 Community Service Award for the development of DC Water's Intelligent Utility Vehicle Program.

By the Numbers

"The economic impact to the District is unbelievable. It would not happen without each and every DC Water employee."

DAVID L. GADIS CEO

HISTORY

The District of Columbia Water and Sewer Authority (DCWASA) was created by District law in 1996, with the approval of the United States Congress, as an independent authority of the District Government with a separate legal existence. In 2010 the Authority rebranded and became DC Water.

SERVICE AREA

DC Water provides more than about 700,000 residents and 21.3 million annual visitors in the District of Columbia with retail water and wastewater (sewer) service. With a total service area of approximately 725 square miles, DC Water also treats 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.

PUMPED AND TREATED WATER STORAGE

During Fiscal Year 2018, DC Water pumped an average of more than 94.0 million gallons of water per day. In addition, DC Water stores 61 million gallons of treated water at its eight facilities. The Washington Aqueduct, which treats drinking water, stores an additional 49 million gallons.

WATER DISTRIBUTION SYSTEM

DC Water delivers water through roughly 1,300 miles of interconnected pipes, four pumping stations, five reservoirs, four water tanks, 43,860 valves, and 9,510 fire hydrants.

SEWER SYSTEM

DC Water operates about 2,000 miles of combined, separate, and stormwater sewers; 50,000 manholes and 25,000 catch basins; nine wastewater pumping stations; one combined sewer swirl facility; and 16 stormwater pumping stations.

BLUE PLAINS

Blue Plains Advanced Wastewater Treatment Plant is located at the southernmost tip of the District, covering more than 150 acres along the Potomac River. Blue Plains is the largest advanced wastewater treatment facility in the world.

WASTEWATER TREATMENT CAPACITY

Blue Plains treats an annual average of 290 million gallons per day (MGD) and has a design capacity of 384 MGD, with a peak design capacity to treat more than one billion gallons per day.



"We never know the worth of water till the well is dry."

THOMAS FULLER



DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY 1385 Canal Street SE, Washington, DC 20003









