



# WATER IS LIFE

dc  2015 annual report



 DISTRICT OF COLUMBIA  
PUBLIC SCHOOLS

# PEOPLE TO PEOPLE

Brookland Middle School student Arwen is featured on the front cover. When she fills up a glass of water, she won't think about drinking water regulations or testing, because that's our job. DC Water employees work around the clock with one goal in mind: customer safety. In a single year, Water Quality Specialists like Corey Wilson test thousands of water samples collected throughout the city. This dedicated team of experts is constantly monitoring the water delivered to homes and businesses in the District, using mobile testing equipment and computer-based monitoring tools.

Corey is one of 1,100 employees who proudly serve our customers every day. Each individual supports DC Water's mission to provide safe, reliable water services. This year, we review our 2015 accomplishments through the lens of our employees. Our team of professionals includes customer service representatives who answer calls at all hours of the day and crews that repair pipes in snow storms and heat waves. Our engineers look for innovative ways to improve our treatment processes, while our financial analysts crunch the numbers again and again to ease the burden on ratepayers. These are the faces of DC Water who represent an organization that at its core, serves the public by employing hard-working, talented people that care about customers.



Water Quality: Corey Wilson

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# GEORGE'S MESSAGE

The principal lesson I have learned after many years at the helm of organizations of varied sizes, locations and missions is that the delivery of great service, the achievement of job satisfaction and ultimately the attainment of high performance depends on people. Ideas matter without a doubt, as does good equipment and healthy work spaces – but the starting point is people. No matter how good we are with everything else, without good people we fail. Yet with good people, everything else comes. Good people do good work, draw resources to the effort and gain the support of the people served.

That is why I am very proud of the people of DC Water – Team Blue as we call them – and I am excited to share their stories with you. It is their efforts that made 2015 such an exciting and successful year for the Authority, and also what has made my time here so incredibly rewarding.

I am now entering my seventh year at DC Water and two realities stand out: our customers are always the main focus. And second, from a customer-oriented foundation, our people help us deliver better service, reduce our costs, and initiate new approaches at the same time.

I have had the pleasure to recognize a few of them each year with the General Manager's Award for Outstanding Performance. People like Kevin Jhingory – who you will read about in this report – known as "The Closer" for getting the job done; Steve Bian, our Supervisor of Civil and Structural Design who has won twice for his work to protect critical infrastructure; Jonathan Reeves, who ensures DC Water is prepared for anything that can go wrong; LaTonya McMillan, the steady administrative support behind our Meter Division; Emanuel Briggs, who keeps the community informed; and Chris Allen who is managing a billion dollars in construction projects. This is but a small few of the fantastic people who serve all of us at DC Water.

I'm equally excited about the work before us, and the innovative spirit I see all around DC Water. Far from a stagnant utility, our people are constantly testing



CEO and General Manager George S. Hawkins meets with customers in Ward 4.

and trying new treatment processes; employing better methods to design and build facilities; and dreaming up creative ideas to improve anything and everything we do. For example, technician Wade Brooks in our Department of Maintenance Services invented a patent pending device that makes it easier to lift manhole covers without bending – providing a safer, easier and more cost-effective tool for our employees.

Our people are also looking for new revenue streams. DC Water jointly holds a patent with the Hampton Roads Sanitation District for new technology in wastewater treatment and is working with a private partner to market the technology to other utilities. Our research laboratory at Blue Plains is widely recognized as a national leader in advanced tests in a variety of areas and now we are offering testing services to other plants. New revenue sources like these can reduce pressure on our customers and can also fund the development of methods for

delivering even better service to our customers! To me, that's just the tip of the iceberg. There's so much more we can and will do to make our own operations better, and just as important, reduce the burden on our ratepayers. People are at the heart of our work, and as you will see on the following pages, our customers are in good hands.

# CHAIRMAN'S MESSAGE

DC Water enjoyed tremendous success in 2015, and I am proud of all of the achievements made during my first year as Chairman of the DC Water Board of Directors. Much of this annual report is appropriately focused on people because none of the milestones reached in the past year would be possible without the work of DC Water's employees and its volunteer Board.

This year the District of Columbia welcomed Mayor Muriel Bowser, who has prioritized creating pathways to the middle class through meaningful job creation. Mayor Bowser is also focused on improving the environment and making DC more sustainable and green. These two priorities were a perfect match for DC Water's updated plan to use green infrastructure to reduce combined sewer overflows to the Potomac River and Rock Creek. Green infrastructure supports natural habitats, enhances public space and helps support local jobs. That is why DC Water collaborated with the District of Columbia Government to establish a goal of hiring District residents for at least 51% of the new jobs created by the initiative. The agreement will make DC greener, improve water quality, and provide good jobs for District residents.

In addition to green infrastructure, DC Water is also constructing tunnels that will capture stormwater and hold it until it can be treated. When completed, this will result in the elimination of 98 percent of combined sewer overflows to the Anacostia River. Lady Bird, one of the three tunnel boring machines in operation in 2015, finished

digging a 4.5 mile long tunnel from Blue Plains to a site near Nationals Park. And this year we placed two additional tunnel boring machines into service. Lucy began digging a tunnel along First Street NW, and Nannie started her route from RFK Stadium south to Poplar Point.

One of the biggest successes of the past year was the commissioning of DC Water's \$470 million bioenergy project that was named after DC Water employee Walter Bailey. Mr. Bailey, who retired last year, served as an Assistant General Manager for Wastewater and was an employee for 43 years. Mr. Bailey was an industry leader and he was instrumental in DC Water's decision to build the waste-to-energy project that is producing a net 10 megawatts (MW) of electricity from the wastewater treatment process, providing clean, renewable energy to power about one-third of the Blue Plains plant's energy needs. The project is also improving air quality by reducing the amount of waste material that must be hauled away from Blue Plains by half.

In 2015 DC Water implemented a new rate structure that charges our customers more equitably, based on the demands they place on our water system. We also structured rates to provide a consistent revenue stream of \$40 million each year that will fund critical upgrades to the aging pipes, valves and pumps that deliver water to homes and businesses. And we achieved all of this while taking measures to protect our residential customers by discounting the water rate for the first 3,000 gallons of drinking water used per



Matthew T. Brown  
Chairman, DC Water Board of Directors

month and continuing programs that help those who are experiencing financial difficulties.

As you will see in the pages that follow, DC Water ended the fiscal year in a strong position. Under the leadership of CEO and General Manager George Hawkins and Chief Financial Officer Mark Kim, DC Water is managing costs, working to provide greater certainty for long-term rates, and structuring debt that pays for our capital program in a way that is responsible to customers. While there is much to celebrate, the Board will continue working with management to move DC Water forward. Right now, the Board and the

staff are working on an effort to better align Blue Horizon 2020, our strategic plan, with specific and meaningful outcome measures. We believe that this effort will help DC Water remain a world class leader.

It has been a pleasure to serve as Chairman of the Board for the past year, and I look forward to working with my fellow board members, staff, and DC Water customers to continue to improve the vital services that we provide every day.



Water Quality:  
Jessica Edwards-Brandt, Maureen Schmelling,  
and Pierre Constant

# LIVE, BREATHE AND THINK WATER

Our Water Quality Management Team and their staff live and breathe all things related to drinking water. Every day, they put our customers first to ensure that residents and businesses have safe water when they turn on their taps.

Jessica Edwards-Brandt thinks about drinking water long before it enters the District. As Manager of the Drinking Water Division, she tracks the water's journey from the Potomac River to a customer's home. Jessica partners with over twenty water utilities in the region to monitor water conditions and identify potential threats to the river. Her team works closely with the U.S. Army Corps of Engineers' Washington Aqueduct, which collects water from the river and turns it


into drinking water at one of two treatment plants in the District of Columbia. After it leaves the treatment plants, Jessica and her staff of 18 water specialists are responsible for making sure water meets regulatory standards and is safely delivered to customers.

Maureen Schmelling is the Water Quality Supervisor for the Drinking Water Division. She oversees a team of nine water quality experts that test over 100 water samples each week. These samples are collected from water sources throughout the District, including fire hydrants, reservoirs, residences and businesses. Water technicians measure each sample for quality indicators that provide valuable information

about the water system. Maureen's staff also investigates water quality problems reported by customers. In 2015, technicians visited 176 homes and businesses to evaluate water conditions. The team is equipped with portable water monitoring equipment and advanced laboratory testing tools that help the Drinking Water Division respond quickly to customer concerns.

Pierre Constant supervises the DC Water Compliance Program that enforces rules to protect drinking water from contamination. In the District of Columbia, connections to the public water supply must be physically separated or use a mechanical device to

prevent water from flowing back into the system. The newly expanded program has already performed 320 investigations to ensure that customers comply with these safety regulations. Pierre's team also investigates illegal fire hydrant connections, which reduces the risk of drinking water contamination. So far, the hydrant compliance monitoring has saved the authority over \$10,000 by recovering otherwise lost fees and equipment costs. The Compliance Program also educates customers about best practices and resources to protect their homes, businesses and the public water supply.



Vanessa Ford, Think  
Tank Teacher / STEM  
Coordinator with Maury  
Elementary School

# REACHING OUT

Vanessa Ford gives her students a challenging assignment: to learn about their environment and to take action to protect and improve it.

“There are tangible, specific steps that all people can take to help our environment and children can be leaders in making important changes,” she says. “Children can be empowered to be change-makers and ensure these changes are made now, and as they grow.”

As the Think Tank Teacher/STEM Coordinator at Maury Elementary School, Ford has collaborated with DC Water over the years to bring hands-on environmental lessons and activities into her classroom. She is one of the many District teachers who participate in the Authority’s school outreach program, which offers additional tools and resources to compliment classroom instruction. Through this program, DC Water engaged nearly 700 students in 2015 and formed partnerships with 10 new schools.

Ford says, “DC Water’s Environmental Education program is an accessible platform for teachers, students and the community to come together to learn about important issues surrounding water safety, use and environmental impacts. I always turn to DC Water’s kids page on their website for lesson ideas when teaching about how to be an environmental steward in our city.

“Partnerships like this one are one of the biggest assets to a classroom or school, as they connect us with professionals working on the issues we are studying, which is very exciting to students. Our DC Water partnership ranks as one of our most trusted, and we look forward to continuing it for years to come.”

Another key component of DC Water’s school outreach program is the annual Children’s Water Drop Festival. Now in its fifth year, the festival was held on the LaSalle-Backus Education Campus in 2015. Participating in a variety of interactive activities, fourth grade students got to explore our water resources and learn about issues impacting the health of our waterways.

In 2015, DC Water also launched an Adopt-a-Tunnel Boring Machine program, a collaborative effort with Phelps High School designed to boost students’ interest in higher education and STEM-related careers. Even more students were engaged in hands-on environmental lessons and virtual field trips through DC Water’s partnership with the non-profit organization EarthEcho International.

# IN THE COMMUNITY

The most popular DC Water employee has to be Wendy the Water Drop. The accessible, smiling blue mascot always draws a crowd when she's out in the community, and plays an important role in our outreach efforts.

In 2015, Wendy and her coworkers at the Authority participated in more than 130 events including festivals, block parties and public meetings across the city, capitalizing on as many opportunities as possible to engage with our customers. We also handed out more than 10,000 reusable water bottles to promote the environmental and economic benefits of drinking tap water.

Notable outreach events include the first annual Anacostia River Festival, the H Street Festival, the 125th Anniversary of Rock Creek Park celebration, and the George Goodman Basketball League's All-Star Game. These events give Wendy and DC Water staff an opportunity to connect with the public beyond the traditional interactions between a utility and its customers – interactions that are usually initiated when something goes wrong, like when a pipe breaks or a customer has billing issues.

Just as important is the outreach to customers impacted by DC Water's construction projects, and 2015 was a very busy year. We are working hard to improve the condition of public water and sewer pipes and the valves needed to control flow through those pipes. There are nearly 100 construction projects, such as small diameter water main replacements, happening across the District at once. These projects require extensive customer outreach before, during and after the work is completed. Through proactive outreach, DC Water strives to avoid surprises and minimize the disruption that is caused by construction.



Wendy the Water Drop

# SERVING DC

Serving our customers and our city can sometimes mean going the extra mile, but for Utility Services Foreman Kevin Jhingory, that's just the starting point. You'll find Kevin carrying sandbags to the door of elderly customers and responding to all manner of sewer emergencies with a smile that rarely ever leaves his face.

"I was born and raised in DC. I graduated from DC Public Schools. I love DC. I love contributing to my city," said Jhingory. "I approach customers with positive energy. If you let them know exactly what you're doing there with full transparency and integrity, I find that people tend to like that."

It's clear from the rave reviews that Kevin garners from his colleagues and customers we hear from on Twitter that he's doing a great job serving the District. But customer service isn't just about enthusiasm or a smile – although it doesn't hurt – there's also real substantive work happening. Kevin helped lead a trenchless piping project for the Sewer Services Department that almost doubled the number of sewer laterals in-house crews were able to line and rehabilitate. That saved the Authority \$1.3 million in 2015 and reduced the disruption to customers caused by construction.

All across DC Water, we're always thinking of new ways to better serve our customers. That means continuing to deliver water and wastewater services that are both reliable and affordable, but also being there, as Kevin and his coworkers are, when customers need our help.



Sewer Services: Kevin Jhingory



# DELIVERING THE BEST



Water Services:  
Renard Blanchard and Curtis Brown

General Foremen Curtis Brown and Renard Blanchard came up through the ranks together at DC Water. Curtis and Renard have worked at DC Water for 28 and 26 years respectively. When their teams ask them about the location of valves and meters, chances are they will have an answer immediately because they installed the equipment years earlier. Curtis and Renard are two members of the Water Services Department who are tasked with delivering high quality drinking water to the residents of the District.

"It's a blessing to be a native Washingtonian and being able to help my fellow Washingtonians," said Renard. "I started out as a laborer and now I'm General Foremen overseeing approximately 50-60 people, I'm blessed. Curtis and I grew up together [at DC Water]. How more blessed can you be."

Blessed would probably not be the way most people would describe last winter. The Water Services team was tested during a six week period of severe cold that damaged water mains and froze pipes. The peak of this extraordinary response occurred in mid-February when the system averaged nine water main breaks per day for over a week.

"It was a snowy Saturday," Renard recalled. "We didn't just have water main breaks. We had pipes in customer's homes that burst. We were on the phones all day dispatching crews and making sure my investigation team had enough resources to assist the repair teams. When my crew finished inspecting a water main, they jumped in their trucks and went to help customers."

DC Water repaired more than 450 water main breaks in 2015, including that challenging spike over the winter months. Behind the scenes, our frontline workers are supported by an experienced team of more than 100 Customer Care Associates who handle service requests, answer billing questions and process payments. A 24-hour Emergency Command Center dispatches crews to ensure a rapid response to any incident.

Emergencies are only part of the workload. New equipment purchased in 2015 dramatically cuts the time it takes crews to perform new service line connections to water mains and minimizes service disruptions. In addition, a vigorous fire hydrant inspection and repair program continued in 2015, ensuring that less than one percent of all fire hydrants are out-of-service at any time.

"When you do a job, it's for the people, it's for the District. You take pride in that," said Curtis. We couldn't agree more.



Resource Recovery:  
Chris Peot and Bill Brower

Not too long ago, District residents Chris Peot, Director of Resource Recovery, and Bill Brower, Manager of Biosolids, imagined a day when their neighbors would help produce a little bit of clean energy every time they flushed their toilets. Thanks to the hard work of Chris, Bill and the rest of the wastewater team at DC Water, that day is here.

The CAMBI thermal hydrolysis and anaerobic digestion facility commissioned this year produces enough electricity to power 11,000 homes and cuts the Authority's electricity bill at Blue Plains by one-third. The increased energy independence will also ease some of the financial burden off of our ratepayers while also helping to keep DC's rivers clean and reducing the District's carbon footprint.

Protecting urban waterways demands creativity. DC Water processes up to 370 million gallons of wastewater per day and separates approximately 400 tons of solids from that water daily. Before the bio-digesters were built, DC Water trucked the solids off of Blue Plains at a cost to ratepayers of more than \$17 million dollars annually and more than two million trucking miles. Chris wanted to find a cheaper and sustainable alternative.

DC Water's wastewater team chose the CAMBI thermal hydrolysis process after an extensive scientific review, because in addition to creating clean energy, it also produces Class A biosolids that can potentially be sold rather than given away to farmers and retailers, turning what was once considered waste into a resource.

"If I'm really good at my job over the next couple of years, everyone in DC will receive some financial benefit from the biosolids project," said Bill. "Biosolids are at the center of water, food and energy. We clean water, create energy and the result is a soil-like product that we can use to grow food. It's all interconnected."

# POWERED BY THE PEOPLE

# GREEN INFRASTRUCTURE

Clean Rivers: Bethany Bezak

Bethany stands atop the Fort Reno Reservoir green roof in Northwest DC. The roof completed its second growing season in 2015 and DC Water is monitoring its performance to inform future green infrastructure projects.

Bethany Bezak is DC Water's Manager of Green Infrastructure. Bethany's background dovetailed perfectly with her work for DC Water. She was active in large-scale stream restoration, watershed analysis and rainwater harvesting. She also has experience in sustainable site design and building practices and civil engineering. She joined DC Water to plan, design and implement projects to absorb, filter, and retain rainwater before it can enter the combined sewer system. These projects involve creating basins with trees and native plants, installing pervious pavers to allow rainwater to filter into the ground, as well as using barrels to capture rainwater. This green strategy is vital to preventing flooding and keeping combined sewer overflows out of our waterways.

One of Bethany's initial projects was to launch the Green Infrastructure Challenge. The purpose of the Challenge was to generate creative ideas from design and construction firms on how to make DC greener while decreasing polluted runoff from storms.

In 2015 a team of expert judges assembled by DC Water selected two concepts for final design. The first project selected is a streetscape on the 100 block of Kennedy Street, NW that will include pervious parking areas, recessed planters topped with walking grates, new trees and landscaped curb bump-outs. The second project is located on two triangular-shaped parks on Kansas Avenue, NW. "When we launched the Challenge, these were just concepts,"

says Bethany, "Now it is fulfilling to watch them come to fruition." The streetscape project on Kennedy Street will be constructed in 2016.

In May 2015, DC Water, the District of Columbia, the U.S. Environmental Protection Agency and the U.S. Department of Justice agreed to modify the Clean Rivers Project for reducing combined sewer overflows to District waterways. The original plan agreed to in 2005 called only for large underground tunnels to capture and convey combined stormwater and sewage. The modification allows for green infrastructure to be installed

to replace some of the previously-planned underground tunnels for the Potomac River and Rock Creek. The tunneling work for the Anacostia River is well underway and those plans remain unchanged.

Bethany's team also worked with the Water Environment Federation this year to begin to develop a green jobs certification and training program. When established, District residents will be encouraged to participate in the training program and receive a certification, potentially leading to employment on DC Water and other green infrastructure projects.

# GRAY INFRASTRUCTURE

DC Water's other method to keep combined sewer overflows out of waterways and reduce flooding is a massive tunnel system, and the most recognizable face on the project in 2015 belonged to "Lady Bird", the massive tunnel boring machine (TBM). After laboring 100 feet below ground for two years, Lady Bird completed mining her four-and-a-half-mile tunnel segment and in July DC Water ceremoniously raised her cutterhead to the surface.

She finished on time and on budget, and hers is the first of several tunnel segments that will clean the Anacostia River when fully constructed. A second TBM named 'Nannie' has now begun her journey, mining from a shaft near RFK Stadium south to DC Water's Poplar Point Pumping Station.

DC Water also christened 'Lucy', the First Street Tunnel's TBM, who began her short – but very important – tunnel in the Bloomingdale neighborhood to reduce flooding during rainstorms. The First Street Tunnel will be the first tunnel segment to begin operating and will store combined sewage during heavy rains until it is pumped into the existing sewer system. The entire tunnel system is an engineering feat that continues to capture the attention of many people around the District and across the country.

Lady Bird exits after completing her four-and-a-half-mile tunnel.

# ENVIRONMENTAL PROTECTION



Wastewater Treatment:  
Haydée De Clippeleir

Haydée De Clippeleir is the Program Manager for DC Water's Solids Research Lab. She is a shining example of the world class workforce at DC Water we call Team Blue.

Haydée joined Team Blue in 2012 as a research intern from Belgium with impressive credentials. Since then she's quickly moved her way up the ranks and manages a staff of 20 international students today. With a Ph.D. and a bright mind, she had many job opportunities, but she remains at DC Water for its innovative culture, which is among the best in the world.

Her initial focus, and very promising research, involves mainstream deammonification which uses a newly discovered microbe to cut the carbon needs in wastewater treatment. This red bug known as annamox is found in the ocean and has the ability to survive high levels of nitrogen and ammonia. This discovery is important since the bugs don't require methanol as a food source, eliminating a huge cost in wastewater treatment.

Haydée is one of many engineers on the team studying innovative ways to improve efficiencies, lower costs, recover resources and protect the environment. The Chesapeake Bay is a very delicate ecosystem and DC Water was the first to meet the environmental goals set by the 1984 Chesapeake Bay Agreement. Protecting the Bay and our rivers is difficult work and DC Water continues to lead the way.

In 2015, DC Water completed Enhanced Nitrogen Removal Facilities to lower nutrient levels in the treated water that is discharged into the Potomac River. Nutrients can cause algae growth that depletes oxygen and is harmful to marine life. Since January 1, 2015 DC Water has removed 1.1 million pounds of nutrients beyond what is required.

DC Water also recently launched the Advancing Research and Technology (ART) initiative. The new initiative allows DC Water to perform specialized testing and analysis as a service to other water utilities for a fee. The program is among several efforts to make use of DC Water's existing resources to generate external revenue to keep costs down for our customers.

# DC WATER WORKS

Korey Gray is DC Water's Contract Compliance and Business Development Officer. But don't let the bland title fool you, Korey is playing a huge role in DC Water's efforts to partner with local businesses and hire more local residents to work on DC Water's projects.

DC Water plans to spend nearly \$3.8 billion on construction projects over the next 10 years and Korey is charged with bringing some of those dollars back to the customers we serve through local contracting and employment opportunities. "Growing up in DC, I learned the important role government and public utilities can play by hiring locally" said Korey. "Contractors working on DC Water projects are mandated to pay prevailing wages which can positively impact the quality of life for workers and their families."

In 2015, DC Water operated three satellite Job Centers across the District of Columbia to give potential applicants information on job openings with DC Water contracting firms and assistance with resume writing. In 2015, 39 individuals were hired through the Job Centers.

Connecting local residents to these good paying jobs isn't as easy as it may seem. Korey explained that "we've learned in our research that many of the available jobs are highly skilled and often don't match the backgrounds of the job seeking population." With this skill gap in mind, DC Water took the extraordinary step of creating a mentorship program where local residents could receive paid entry-level on-the-job training with a local construction firm. The lessons learned from this pilot program are being applied to a broader local employment strategy at DC Water.

At the direction of CEO and General Manager George Hawkins and DC Water's Board of Directors, Korey and his team are developing a program to incentivize contractors to hire residents of the DC Water service area. The comprehensive program, called DC Water Works already made an impact in 2015 when 83% of the 137 newly-hired contractor employees lived in DC Water's user jurisdictions.

When asked about the challenges in creating a local jobs program, Korey responded that "DC Water has the opportunity to be innovative and lead the public sector by creating a truly effective local jobs program. I know that our work has real impact on people's lives and that's what keeps me motivated each day."



Contract Compliance:  
Korey Gray

# BOARD OF DIRECTORS AND EXECUTIVE TEAM

## Principal Board Members

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District of Columbia  
Office of Budget and Finance, Executive  
Office of the Mayor, Director

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

**Rachna Butani**  
District of Columbia  
HRGM Corporation, Director

**Elisabeth Feldt**  
Montgomery County, MD  
Department of Environmental  
Protection, Director

**Timothy L. Firestine**  
Montgomery County, MD  
Chief Administrative Officer

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

**Nicholas Majett**  
Prince George's County, MD  
Chief Administrative Officer

**Obiora "Bo" Menkiti**  
District of Columbia  
The Menkiti Group and Keller Williams  
Capital Properties, Chief Executive  
Officer and Founder

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

**Alan J. Roth**  
District of Columbia  
United States Telecom Association,  
Senior Executive Vice President

## Alternate Board Members

**Shirley Branch**  
Prince George's County, MD  
Department of Environmental  
Resources, Project Manager / Water  
and Sewer Plan Coordinator

**Reverend Dr. Kendrick Curry**  
District of Columbia  
Pennsylvania Avenue Baptist Church,  
Pastor

**Howard C. Gibbs**  
District of Columbia  
Retired

**Bonnie Kirkland**  
Montgomery County, MD  
Assistant Chief Administrative  
Officer

**David W. Lake**  
Montgomery County, MD  
Department of Environmental  
Protection, Special Assistant

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

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

## Executive Team

**George S. Hawkins**  
CEO and General Manager

**Leonard R. Benson**  
Chief Engineer

**Mustafa Dozier**  
Chief of Staff

**Biju George**  
Chief Operating Officer

**Randy Hayman**  
General Counsel

**Alan Heymann**  
Chief Marketing Officer

**Rosalind Inge**  
Assistant General Manager  
Support Services

**Charles Kiely**  
Assistant General Manager,  
Customer Care and  
Operations

**Mark Kim**  
Chief Financial Officer

**Thomas L. Kuczynski**  
Chief Information Officer

**John Lisle**  
Chief, External Affairs

**Aklile Tesfaye**  
Assistant General Manager,  
Blue Plains

## Eleven Principal and Eleven Alternate Board Members 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 eight standing committees:

- **Audit**, Nicholas Majett, Chair
- **DC Retail Water and Sewer Rates**, Alan J. Roth, Chair
- **Environmental Quality and Sewerage Services**, James Patteson, Chair
- **Finance & Budget**, Timothy Firestine, Chair
- **Governance**, Ellen O. Boardman, Chair
- **Human Resources and Labor Relations**, Bradley Frome, Vice Chair
- **Strategic Planning**, Obiora "Bo" Menkiti, Chair
- **Water Quality and Water Services**, Rachna Butani, Chair



# RETHINKING RATES

Syed Khalil had a big task. As Manager of Financial Planning for DC Water, he needed to find a more equitable way to raise the money needed to pay for DC Water's \$450 million yearly operating costs and the \$3.8 billion in current and future construction projects. His solution was a win-win for DC Water and its customers.

Previously, all DC Water customers were charged the same rate for drinking water and the services we provide to clean it afterward. Customers using large amounts of water were charged the same rate as those using far less. This rate system didn't properly account for the costs to operate, upgrade and maintain our system. It also didn't consider that some fees were placing an unfair burden on our residential customers.

After analyzing years of data, Syed and his team recognized that customers with high peaks of water use need a water system with more capacity than typical residential customers. This finding led DC Water to establish a new rate structure with different water rates for three different customer classes – residential, non-residential and multi-family.

Syed and his team also realized that DC Water would need a stable source of funding to replace its aging water pipes, half of which were installed before 1936. In response, they created the Water System Replacement Fee (WSRF) which is used to pay for upgrades to the water system. The fee is based on the size of a customer's water meter, which is a more accurate and fair method than simply relying on how much water customers use each month.

Finally, Syed and the team focused on the challenge of keeping DC Water's rates affordable, especially for those less fortunate. The new rate structure included an innovative "lifeline rate" which discounts the first 4 Ccfs (about 3000 gallons) of drinking water each month for all residential customers, which covers the basic water needs for an average family living in the District.

Redesigning the entire rate system was an unprecedented undertaking at DC Water. Thanks to the tireless dedication and innovative thinking of Syed and his team, DC Water customers are benefiting from more efficient and equitable rates and \$40 million per year in water system upgrades.



Finance and Budget: Syed Khalil



# 2015 FINANCE AND BUDGET

## Financial Performance

DC Water ended fiscal year (FY) 2015 with excellent financial performance. The results included strong liquidity, solid operating revenues with tight control over expenses, and positive budget to actual results. The Authority met or exceeded all financial targets and complied with Board policies and bond covenants.

## Highlights

- Operating revenues increased by \$76.1 million to \$549.9 million or 16.1%, primarily due to the retail rate increase of 7.5% and a 16.2% increase in wholesale wastewater charges.
- Operating expenses increased by \$22.6 million to \$378.7 million or 6.4%, primarily due to increases in personnel, chemicals and supplies, depreciation expense, and payments-in-lieu of taxes (PILOT) and right-of-way fees (ROW) offset by a decrease in contractual services expense.
- Capital assets, net of depreciation and amortization, increased by \$543.3 million to \$5.5 billion, or 11.0%, as a result of capital additions of \$627.2 million offset by depreciation and amortization of \$83.9 million. Capital additions incurred in 2015 were in line with the Authority's approved 10-year capital improvement program.
- Current assets decreased by \$70.6 million to \$512.2 million, or 12.1%, due to a decrease in cash, investments and receivables from other jurisdictions.
- Net position increased by \$179.1 million to \$1.5 billion, or 13.3%, as a result of current year operations and capital contributions.
- Issued subordinate lien revenue refunding bonds, 2014 Series C in the amount of \$377.7 million. The proceeds from the bonds were used to refund \$378.2 million of the Authority's outstanding bonds. The interest on the bonds are at fixed rates ranging from 3.0% to 5.0%.
- Senior debt ratings of Aa2/AA+/AA 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 19th consecutive unmodified audit opinion on its financial statements.

## September 30, 2015 and 2014 (in thousands)

### CONDENSED STATEMENTS OF NET POSITION

	2015	2014
Current assets	\$512,226	\$582,782
Capital assets, net	5,477,327	4,934,018
Other non-current assets	93,945	289,563
Total assets	<u>6,083,498</u>	<u>5,806,363</u>
Deferred Outflows of resources	45,246	10,768
Current liabilities	471,766	434,141
Long-term debt outstanding	2,520,046	2,520,935
Long-term liabilities	<u>1,606,990</u>	<u>1,511,240</u>
Total liabilities	<u>4,598,802</u>	<u>4,466,316</u>
Net investments in capital assets	1,348,056	1,130,952
Restricted	27,054	28,863
Unrestricted	<u>154,832</u>	<u>191,000</u>
Total net position	<b>\$1,529,942</b>	<b>\$1,350,815</b>

### CONDENSED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

	2015	2014
Operating revenues	\$549,915	\$473,824
Operating expenses	378,660	356,024
Net non-operating revenues (expenses)	(60,093)	(68,311)
Change in net position before capital contributions	<u>111,162</u>	<u>49,489</u>
Capital contributions	67,965	94,690
Change in net position	<u>179,127</u>	<u>144,179</u>
Net position - beginning of year	1,350,815	1,206,636
Net position - end of year	<b>\$1,529,942</b>	<b>\$1,350,815</b>

### CONDENSED STATEMENTS OF CASH FLOWS

	2015	2014
Net cash provided by operating activities	\$217,425	\$183,747
Net cash used in capital and related financing activities	(510,694)	(135,739)
Net cash used in investing activities	<u>264,240</u>	<u>(62,903)</u>
Net (decrease) increase in cash and cash equivalents	(29,029)	(14,895)
Cash and cash equivalents - beginning of year	<u>262,678</u>	<u>277,573</u>
Cash and cash equivalents - end of year	<b>\$233,649</b>	<b>\$262,678</b>

# AWARDS



Walter F. Bailey began his 43 years of service to DC Water in 1972. That was long before treatment processes at the Blue Plains plant consumed all 153 acres on its site at the southernmost tip of the District. In fact, the treatment process was short and the effluent not nearly as clean as it is today. Under the leadership of the Wastewater and Engineering teams, DC Water expanded processes and technology over decades to make Blue Plains a state-of-the-art resource recovery plant.

Along the way, Walt received numerous professional awards including the Water Environment Federation's Emerson Medal for contributions to the profession, and the American Academy of Environmental Engineers and Scientists' Edward J. Cleary Award for outstanding performer in the management of environmental protection enterprises. In 2014 he was inducted into the Virginia Tech Academy of Distinguished Civil and Environmental Engineering Alumni and this year, Engineering News Record named him as a Top 25 newsmaker. He received three U.S. patents for developing treatment processes at Blue Plains and is the author or coauthor of more than 75 technical presentations and publications.

Walt retired at the end of 2015, but his legacy lives beyond these accomplishments. Over the years, he assembled an all-star team and supported them as they grew into some of the best wastewater professionals in the world. His staff points to his leadership, mentoring and friendship as reasons why they love their jobs and have collaborated on so many successful projects. DC Water personnel have earned dozens of prestigious national and international awards in research, biosolids management, facility design and plant performance. The future of resource recovery at Blue Plains is bright as a destination for smart and innovative professionals, due in no small part to the strong foundation laid during Walt's tenure.

Walt is just one of DC Water's outstanding professionals who earned accolades this year. DC Water, its staff and facilities garnered 24 awards. A select few follow.

#### **GOVERNING Magazine named George Hawkins "Public Official of the Year"**

General Manager and CEO George Hawkins was profiled in the December 2014 issue of the magazine alongside a governor, a mayor and other public servants whose leadership and innovation stood out on a national scale.

#### **Bond Buyer named DC Water's green century bond as "Regional Deal of the Year"**

DC Water's finance team was awarded for the innovative and highly successful green century bond issued in July 2014. The \$350 million bond deal was the first municipal century bond (100-year final maturity) issued by a water and sewer utility in the U.S. In addition, it was the first "green" bond in the U.S. debt capital markets to be certified by an independent second party opinion in accordance with the Green Bond Principles.

#### **DC Chamber of Commerce named George Hawkins "Business Leader of the Year 2014"**

General Manager and CEO George Hawkins received this recognition for his outstanding contributions that make Washington, DC a great place to do business.

#### **National Association of Clean Water Agencies (NACWA) Environmental Achievement Award: Mainstream Deammonification**

DC Water and Hampton Roads Sanitation District partnered on ground-breaking research that seeks to revolutionize nutrient removal. The project won in the research division.

#### **NACWA Environmental Achievement Awards: Operations & Environmental Performance: DC Water Fort Reno Green Roof Project**

The Clean Rivers Project team won this award for its installation of a large green roof at DC Water's Fort Reno Pumping Station.

#### **NACWA Public Information and Education Award**

DC Water's Office of External Affairs was recognized for its use of social media to educate the public on the Clean Rivers Project.

#### **NACWA Peak Performance Award**

DC Water's wastewater team received the Gold Award for 100% compliance of NPDES permit requirements during the entire 2014 calendar year.

#### **Global Water Intelligence, Distinction, 2015 Global Water Deal of the Year Award**

DC Water's finance team received recognition by Global Water Intelligence Magazine for the green bond sale, standing out on an international stage.

#### **American City and County Magazine "100 Best Fleets award in North America"**

DC Water was named among the best fleets in the country.

#### **Engineering News Record "Top 25 Newsmaker of 2014"**

Walter Bailey was recognized for his work on the CAMBI bioenergy facility.

#### **Government Finance Officers Association's Budget Presentation Award and the Award of Financial Reporting Achievement**

The Office of Chief Financial Officer was awarded for DC Water's Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 2014.

#### **Greater Washington Region Clean Cities Coalition "Most Visionary Professional Award"**

Director of DC Water Fleet Operations Tim Fitzgerald received the recognition for his innovative and efficient fleet management program.

#### **Engineering News Record "Mid-Atlantic Best Project Award"**

DC Water's design-build team was recognized in the Water/Environment category for the McMillan stormwater storage project.

## 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**.



**Employees** – Approximately **1,100 people** are employed by DC Water.



## Service Area

DC Water provides more than **672,000 residents** and **17.8 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 2015, DC Water pumped an average of **101 million gallons** of water per day. In addition, DC Water stores **61 million gallons** of treated water at its eight facilities. The Washington Aqueduct stores an additional **49 million gallons**.



## Water Distribution System

DC Water delivers water through **1,308 miles** of interconnected pipes, four pumping stations, five reservoirs, three water tanks, **43,860 valves**, and **9,510 fire hydrants**.

## Sewer System

DC Water operates **1,900 miles** of sanitary and combined sewers, 160 flow meters, nine wastewater pumping stations, 16 stormwater pumping stations, 12 inflatable dams and a swirl facility.



## 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 **300 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.



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