# water is life de 2014 Annual Report

## dc At a Glance

#### HISTORY

The District of Columbia 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.

## AGE OF PIPES

The median age of District water main pipes is 79 years old. Approximately nine percent of the pipes were installed in the 1890s, with two percent dating back to the 1860s before the Civil War.

#### SERVICE AREA

DC Water provides more than 640,000 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.

#### **EMPLOYEES**

Approximately 1,118 people are employed by DC Water and work at various facilities throughout the District.

#### DRINKING WATER QUALITY

DC Water maintains a strong emphasis on water quality, which involves an annual flushing program, regulatory and voluntary water quality testing, and ongoing system upgrades. In partnership with the U.S. Army Corps of Engineers Washington Aqueduct, DC Water ensures a high quality treatment process for delivering outstanding drinking water throughout the year.

## PUMPED AND TREATED WATER STORAGE

During Fiscal Year 2014, DC Water pumped an average of 95 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 1,350 miles of interconnected pipes, four pumping stations, five reservoirs, three water tanks, 43,860 valves, and 9,510 fire hydrants.

#### BLUE PLAINS ADVANCED WASTEWATER TREATMENT PLANT

Located at the southernmost tip of the District and 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 370 MGD, with a peak design capacity to treat more than one billion gallons per day.

## SEWER SYSTEM

DC Water operates 1,900 miles of sanitary and combined sewers, 22 flow-metering stations, nine off-site wastewater pumping stations, 16 stormwater pumping stations, 12 inflatable dams and a swirl facility.

## CUSTOMER SERVICE

DC Water provides valuable information to customers through bill inserts, monthly newsletters, its website, and social media including Facebook, YouTube, Flickr, Twitter, and Instagram. DC Water makes information available in more than 150 languages. A 24-hour Emergency Command Center, at (202) 612-3400, operates as the centralized communication facility for receiving and responding to a variety of emergency calls from customers and the public, and remains in contact with crews in the field as well as other District agencies.

## PUBLIC ENGAGEMENT

DC Water invests in the community by facilitating environmental education programs and conducting science laboratory exercises in DC public and public charter schools. Additionally, DC Water engages the public through tours of Blue Plains. More than 2,200 people toured Blue Plains in FY 2014, double the number of tour-takers in 2013.

## COMMUNITY SERVICE

Year round, DC Water employees donate their time and resources to a variety of company sponsored and individual volunteer and charitable projects. Additionally, DC Water employees contributed \$24,933 to the SPLASH (Serving People by Lending a Supporting Hand) Program through payroll deductions. The public added another \$91,051.

## GOVERNANCE

A 22-member Board of Directors, with representatives from the District, Montgomery and Prince George's counties in Maryland and Fairfax County in Virginia, establishes policies and guides the strategic planning process. The District members set rates, charges and policies for District services. The entire Board votes and establishes policies for joint-use services. The CEO and General Manager reports to the Board and manages the daily operations and performance of the enterprise.



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## CEO and General Manager's Message

In 2014, I celebrated my quinquennial anniversary at DC Water and what a remarkable and rewarding five years it has been! I am extremely grateful to the Board of Directors for giving me the opportunity to lead this enterprise, and to Team Blue for the incredible work they do, day in and day out, on behalf of our customers. The many accomplishments documented here in the Annual Report cover every facet of the enterprise, from innovative financing to groundbreaking research, and they really demonstrate what a forward-thinking, customer-oriented organization this is, and the top notch employees we attract.

Of course, there have been a few challenges in the past five years as well – it comes with the territory – and nothing has tested us more during my tenure than the flooding in the District neighborhoods of Bloomingdale and LeDroit Park. When streets and homes were inundated in these low-lying neighborhoods in the summer of 2012, it opened my eyes to the critical connection between our infrastructure and our customers' quality of life. However, this same experience also showed DC Water at its finest as Team Blue mobilized in response to the flooding.

A task force appointed by the Mayor issued 25 recommendations to address the problem in the short, medium and long term, and the team here at DC Water devoted tremendous resources to carry them out. We partnered with the District Department of the Environment (DDOE) to offer residents free rain barrels and engineering consultations for flood prevention. We provided rebates for the installation of backwater valves to prevent sewage from backing up into basements. And our in-house experts immediately got to work on large scale engineering solutions.

In 2014, just two years after the devastating floods, we celebrated the completion of multiple projects that will store millions of gallons of stormwater during heavy rains, thereby reducing the possibility of flooding. These include converting an abandoned sand filtration cell into a huge storage tank and installing rain gardens on Irving Street. In addition, we broke ground on the First Street Tunnel which will collect another eight million gallons of stormwater and sewage when it's completed in 2016.

Our team accelerated that tunnel project and tackled the flooding challenge with incredible focus and commitment. That is the DC Water way and it is why I am proud to lead this organization. Whether it's embracing new technology to overcome space limitations at the wastewater treatment plant, or pioneering new bond financing to save ratepayers money, the Authority is a leader, not a follower. Tested as it was in Bloomingdale, Team Blue will rise to the challenge and do what is necessary to improve the enterprise and deliver quality service to its customers.

I co-chaired the Mayor's Task Force with Allen Lew, then City Administrator and Chairman of the DC Water Board of Directors. It was just one of the many ways Allen partnered with us and supported our work – to the benefit of District residents – and we are grateful for his service to DC Water.

Durye S. Janki

George S. Hawkins



## **FY 2014 Board of Directors** and Executive team

Eleven Principal and Eleven Alternate Board Members Govern DC Water.

The DC Water Board meets monthly at the Blue Plains Advanced Wastewater Treatment Plant. The Board Chairperson is 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, Obiora "Bo" Menkiti, Vice Chair
- Finance & Budget, Timothy Firestine, Chair
- Governance, Ellen O. Boardman, Chair
- Human Resources and Labor Relations, Edward L. Long, Chair
- Strategic Planning, Robert L. Mallett, Chair
- Water Quality and Water Services, Rachna Butani, Chair



#### Principal Board Members

Matthew T. Brown, Chairman 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

Timothy L. Firestine Montgomery County, MD Chief Administrative Officer

Edward L. Long, Jr. Fairfax County, VA County Executive

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

Robert L. Mallett District of Columbia

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

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

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

Retired

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

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

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

Brenda Richardson District of Columbia Chozen Consulting LLC, President

#### Alternate Board Members

Howard C. Gibbs District of Columbia

Bonnie Kirkland Montgomery County, MD Assistant Chief Administrative Officer

#### Executive Team

George S. Hawkins CEO and General Manager

Walter Bailey Assistant General Manager Wastewater Treatment

Leonard R. Benson Chief Engineer

Mustaafa Dozier Acting, Chief of Staff

Randy Hayman General Counsel

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

# **At Your Service**

#### CUSTOMER SERVICE OVERVIEW

Water is life, and providing clean water to our customers is our core business. We are also constantly working to ensure we back up our product with top notch customer service. DC Water has a team of over 100 individuals equipped to help our customers by handling their service requests, answering billing questions and processing payments. Our call center is staffed by real people in the District of Columbia who are trained to provide high quality services to our customers. Customer Care associates can assist customers in 150 languages using a special language line service. For those who prefer to reach us online, DC Water offers a report-a-problem application, online billing and automated payment services through our **dcwater.com** website.

DC Water considers communicating with customers a top priority. The Authority provides monthly updates through the "What's on Tap?" and bi-annual "Clean Rivers Project News" bill inserts. Through a work-zone alert system, residents are notified when crews are working in their neighborhood. We also keep customers informed through active social media accounts including Twitter, Facebook, and Instagram.





DC Water is committed to responding to incidents by staffing a 24-hour Emergency Command Center where we dispatch our teams to address the needs of those who live, work and play in the District of Columbia. We encourage residents to report water emergencies to the Command Center at (202) 612-3400. We also serve our customers by inspecting every public fire hydrant in the District of Columbia. Our inspections ensure that at least 99% of all public hydrants are in service at all times.

As a courtesy to our customers, DC Water offers high water usage alerts (HUNA) that notifies them via email, text or phone call when their water usage spikes well above their average usage for four consecutive days. This powerful tool allows DC Water to alert customers to internal plumbing issues like a leaking toilet that could contribute to an unexpectedly high water bill. Last year, DC Water sent out nearly 10,000 notifications to customers, saving them untold dollars in water bills.



**Kim Harrison** of DC Water's Emergency Command Center is a professional at multi-tasking with grace. Inside her office in Southeast, she and her colleagues keep track of water and sewer emergencies by monitoring large maps projected on screens, answering telephones, replying to emails, and broadcasting messages over an advanced radio dispatch system. The team in the Command Center plays the role of the quarterback - calling plays for multiple DC Water crews spread throughout the District of Columbia. Kim and her coworkers not only communicate with DC Water staff, they also inform residents and businesses when our work in public space causes disruptions to service. Kim's work in the Command Center is especially busy during winter months when pipes are more likely to break. For instance, freezing temperatures damaged water mains and service lines for more than 500 customers over a period of six weeks in 2013. Despite the difficult working conditions, DC Water worked around the clock to safely return service to all of our affected customers. During this time Kim and her colleagues fielded more than 8,200 emergency service calls.

While the work is intense, Kim has enjoyed serving customers in her hometown of DC for the last 27 years. Her familiarity with the District helps her connect with our customers and her intimate knowledge of the city's landmarks allows her to easily identify locations for emergency attention. Kim explained her biggest regret is when customers call her with a problem that cannot be solved by DC Water, such as pipe breaks inside private property. Kim embodies DC Water's commitment to customer service and we are proud to have her as a member of our team.

## At Your Service CONTINUED

# A LOCAL HIRING INITIATIVE

Two thousand fourteen marks a full year of DC Water's signature local hiring initiative aimed to include DC residents in job opportunities on DC Water contracts. The DC Water Works program is a multi-pronged effort to connect with job seekers, training providers, and our contractors to ensure that ratepayers benefit from the employment opportunities created by DC Water projects. An important element of the program is the creation of multiple job centers that are a venue for contractors and vendors to interview prospective employment candidates. Visitors to the Center are provided with updated contractor employment opportunities as well as information on how to apply for jobs that may interest them. In 2014, our neighborhood job centers received a total 726 applications and over 80 percent of those hired live in DC Water's service area. In addition to the job centers, the DC Water Works program co-hosted two job fairs with DC Water contractors to proactively connect employers with qualified residents.

In addition, DC Water partnered with the local non-profit DC Greenworks to build an innovative green roof maintenance training program for unemployed and underemployed local young adults. The training program is comprised of traditional classroom instruction followed by comprehensive field-based, hands-on training at DC Water's new Fort Reno Reservoir Green Roof. As a partner in this effort, DC Water provided program funding, site access and safety training. The first class of trainees graduated in the early summer of 2014, and all seven graduates were placed in new jobs within 30 days of completing the program. The program provided real-world training for local residents in a high growth industry, establishes a model for green roof maintenance and training standards to support future job creation, and supports local demand for a skilled "green" workforce.







## **Perry Lindsey**

DC Water's Job Center is helping District residents connect with DC Water's contractors. In the spring of 2014, Mr. Perry Lindsey found himself in need of a job. Interested in using his skills as a truck driver with a commercial driver's license, Mr. Lindsey used the DC Water Works website to identify a job opening with one of DC Water's contractors. He followed up by visiting our Job Center where DC Water staff helped him navigate the application process. Soon afterward, Mr. Perry was interviewed and hired by the contractor where he remains employed today.

Mr. Perry is developing professional skills that can provide a springboard for advancement in the water and construction sectors. As a Ward 7 resident of the District of Columbia, Mr. Perry is grateful for the DC Water Works program and is proud to serve the community he has lived in his entire life. His story embodies DC Water's mission to help connect residents with employment opportunities in their community.

## At Your Service CONTINUED

#### DRINKING WATER QUALITY OVERVIEW

DC Water purchases drinking water from the Army Corps of Engineers Washington Aqueduct, which collects drinking water from the Potomac River at Great Falls and Little Falls and treats it at one of two facilities located in the District. Once the water leaves the treatment plant, DC Water maintains drinking water quality within the pipe system and ensures reliable delivery to residential and commercial customers.

#### WATER QUALITY MONITORING AND REPORTING

Delivering safe, great-tasting water is DC Water's first priority. Technicians conduct hundreds of water quality tests throughout the District each week, including tests that are required by federal drinking water regulations and voluntary tests performed in homes, businesses, schools and daycares. DC Water offers free lead testing to all residents and distributed a total of 322 test kits in 2014. DC Water's compliance lead testing program shows historically low levels, and the Authority continues to operate a lead service pipe replacement program, which resulted in 284 lead service replacements in 2014.

DC Water continues to meet federal water quality standards and often surpasses these standards by meeting even stricter water quality targets established by the Authority. DC Water reports all test results in the annual Drinking Water Quality Report, which is publicly available in print or electronic copy. DC Water mailed a notice of the report's availability to every household and commercial customer in the District in June 2014. This year, DC Water participated in the U.S. Environmental Protection Agency's Unregulated Contaminant Monitoring Program. The program will help DC Water learn about the occurrence of unregulated compounds, and the information will help the EPA determine if regulation is necessary to protect public health.

## 40TH ANNIVERSARY OF IMPORTANT DRINKING WATER PROTECTIONS

2014 marks the 40th anniversary of the Safe Drinking Water Act, the law that establishes water quality and delivery standards for public drinking water suppliers. DC Water partnered with regional water utilities, national water organizations and the Environmental Protection Agency to host a 'Toast to Tap' celebration. The event commemorated the milestone and raised awareness about the value of safe water for public health and a strong economy in the Metropolitan Washington region.



#### DRINKING WATER IMPROVEMENT PROJECT

DC Water is committed to providing high quality drinking water, and each year, the Authority executes improvement projects to rehabilitate or replace water mains. In June 2014, DC Water completed the successful cleaning and relining of approximately 7,000 feet of pipe to address water quality concerns in the Colonial Village and Hawthorne neighborhoods. DC Water piloted the cleaning and lining technology as an alternative to traditional pipe replacement, which can take several years to complete. The cleaning and relining project was finished in approximately 10 months and greatly minimized disruption to the residents. Upon completion of the project, testing and customer surveys demonstrated a significant improvement in water quality.

## At Your Service CONTINUED

#### OUTREACH

Water is a vital resource for people and businesses and DC Water takes great pride in supporting the communities we serve. Under the leadership of CEO and General Manager George Hawkins, the Authority has vastly expanded its outreach efforts to engage customers and be good neighbors. In 2014, that outreach included more than 120 events, street festivals, block parties, parades and public meetings across the District.

#### IN THE COMMUNITY

DC Water's engagement efforts are largely focused on promoting the many benefits of tap water. Team Blue handed out 30,000 reusable water bottles throughout the year, and hosted or participated in numerous drinking water related events. The Authority held its third annual "Water Wednesdays" series of taste test challenges. More than 700 people participated across the city. Asked to compare tap water to bottled water in a blind taste test, 57 percent said they preferred the taste of tap water or could not tell the difference between the two. The results closely mirrored what DC Water heard from customers in the two previous challenges.

DC Water also increased its support of National Drinking Water Week, with appearances at a farmers' market,

the Smithsonian's Garden Fest, and a Nationals baseball game. Over the summer, DC Water employees were able to engage large crowds at some of the most popular outdoor events in the District including the H Street Festival, Adams Morgan Day, the Capital Pride Parade and a World Cup viewing party at Freedom Plaza where DC Water provided refreshing tap water to thousands of dehydrated soccer fans on a scorching hot July day.

As a way to supply drinking water more rapidly during large public events, DC Water now has a Quench Buggy. This mobile water distribution station is equipped with a chiller and multiple taps to meet high demand. In addition to outreach events, the Quench Buggy can also be pressed into service to supply fresh water to customers during planned or unexpected water outages.

#### **BUDGET TOWN HALL MEETINGS**

Continuing a tradition he started after taking the helm of DC Water in 2009, General Manager George Hawkins once again hosted a series of Budget Town Hall Meetings in all eight city wards. More than 300 customers attended the spring meetings to listen to Mr. Hawkins present and explain the proposed budget and rates for the next fiscal year, and to ask questions on a host of topics including billing and service issues.

#### ENVIRONMENTAL EDUCATION PROGRAM

Connecting children to their water supply fosters greater environmental awareness and stewardship. Through age-appropriate lessons and activities, DC Water's Environmental Education Program provides students - in kindergarten through high school - a broad view of some of the environmental challenges and issues involving their watershed. Since the program began in 2011, more than 1,000 students in public, private, parochial, and charter schools have participated in hands-on learning activities and interactive presentations. The Environmental Education program, free to all District students, is designed to mobilize students to adopt lifelong water-efficient behaviors and attitudes.

DC Water also hosts an annual Children's Water Drop Festival to teach students about their drinking water through fun and informative activities. In 2014, DC Water partnered with the John Burroughs Education Campus and approximately 80 students from the school participated in this free, outdoor program. Students engaged in a variety of games, activities and exhibits about drinking water, water quality, conservation, and wastewater treatment. The Water Drop Festival offers our future environmentalists and conservationists a hands-on experience to explore and investigate their drinking water.



#### VISITORS

Every year thousands of visitors pass through DC Water's Blue Plains Advanced Wastewater Treatment Plant. In 2014, DC Water hosted 123 tours, double the number of tours from the previous year. More than 2,200 people –including international dignitaries, school children, college students and environmental groups— coursed through the 150-acre site on guided tours. Tours begin near the headworks of the plant and end overlooking the banks of the Potomac River, where effluent is returned at the end of the treatment process.

To accommodate the growing interest in the plant, DC Water opened a new visitor center at Blue Plains in 2014. The 3,000 square foot building is the first stop for DC Water guests. Its design blends historical features of Blue Plains with modern ones. The center boasts several green features, including a green roof, which helps reduce storm water runoff. Inside, railings made of water and sewer pipes decorate the front desk; plants sprout from floor-to-ceiling living walls, which help regulate the building's temperature; and the blue and green flecks on the lobby floor are pieces of recycled glass. A multi-panel wall illustrating the water cycle –and DC Water's role in it— sets the tone for visitors' educational journey.

# Capital Investment

DC Water's immense and ambitious capital program is moving the Authority into the next generation of treatment technology and environmental sustainability. In 2014, DC Water completed the Enhanced Nutrient Removal Facilities at Blue Plains and made huge strides on two other environmental projects.

#### ENHANCED NUTRIENT REMOVAL FACILITIES (ENRF)

DC Water completed construction on this \$977 million project that will reduce nitrogen discharges to the Potomac River, and protect the Chesapeake Bay into which the Potomac flows. DC Water was the first entity to meet the Chesapeake Bay Program goals to reduce nitrogen levels by 40 percent of the 1985 level. The previous generation of improvements lowered nitrogen levels below the permit requirement of 8.5 million pounds per year. Commissioned in October, the new facilities will bring nitrogen to below 4.4 million pounds per year, the new level permitted for Blue Plains by the U.S. EPA beginning in 2015. Added treatment capacity and pumping comprised the bulk of the project with 40 million gallons of denitrification capacity.

Additional components still underway include upgrades to the secondary (biological) treatment processes and a tunnel dewatering pump station and enhanced clarification facility that will link the Clean Rivers Project and the Blue Plains wastewater treatment processes.

#### THERMAL HYDROLYSIS AND ANAEROBIC DIGESTION-RECYCLING ENERGY FROM WASTEWATER

DC Water's largest recycling project to create combined heat and power from the solids left over at the end of the wastewater treatment process is nearing completion and should be operational in early 2015. In the past year, all four of the digester towers – 80 feet high and 120 feet in diameter—were completed and the domes were set in place by slowly filling the digesters with water and floating the roofs to the top, where they were secured. Then the digesters were drained and seeded with biosolids already containing the methanogens needed for the process. The shiny thermal hydrolysis vessels were completed, giant turbines delivered and placed, and the electrical and mechanical processes installed.

DC Water spent years researching the CAMBI thermal hydrolysis system and will be the first facility in North America to use the technology. Using high heat and pressure, like a pressure cooker, weakens the cell walls of the organic matter, making it more accessible for bacteria to consume during anaerobic digestion. The bacteria produce methane which will be captured to create electricity to help power the treatment plant. In addition, the high heat and pressure will kill any pathogens in the solids, creating a "Class A" biosolid, clean enough to use as a fertilizer. DC Water will save millions from the power generated and by keeping the fertilizer local.

This is just one example of DC Water's ambitious sustainability plans that also includes solar power and flood-proofing facilities.



#### DC CLEAN RIVERS PROJECT

Deep below the District, giant tunnel boring machines, TBMs, are inching their way through dirt and clay on their journey to build miles of deep-storage tunnels. The tunnels will hold sewage and stormwater during intense rain events to prevent overflows to local waterways. In 2013, "Lady Bird," a 26-foot diameter TBM was lowered into a shaft on the Blue Plains plant and began chewing her way northward on a 4-mile trek. At the close of Fiscal Year 2014, her sister TBM, "Nannie" was poised to begin her journey southward from a shaft near RFK Stadium. Two more TBMS will be enlisted to complete the 13.1-mile long Anacostia River Tunnel, ultimately reducing combined sewer overflows by 98 percent to dramatically improve the health of the Anacostia River.

Meanwhile, DC Water, the U.S. EPA and others are discussing the solution for combined sewer overflows to the Potomac River and Rock Creek. DC Water hopes to incorporate more green infrastructure and smaller tunnels to achieve even more environmental benefits.

Green infrastructure is the use of greenery—trees, rain gardens—and containers like rain barrels, or pervious surfaces (such as porous pavers) to infiltrate water into the ground to keep it out of the sewer system. Green infrastructure has added benefits such as increasing property values, increasing natural habitats, creating local jobs and creating a greener, more attractive city.

photo: Courtesy of David Kidd



## Capital Investment CONTINUED





#### FIRST STREET TUNNEL PROGRESS

A portion of the DC Clean Rivers Project was altered and accelerated to reduce chronic flooding in the Bloomingdale and LeDroit Park neighborhoods. DC Water is putting in place several engineering measures and made enormous progress during Fiscal Year 2014.

At the center of this local flood prevention effort is the construction of the First Street Tunnel, a 20-foot diameter, 2,900-foot long tunnel running under First Street, NW beginning at the McMillan Sand Filtration site and ending at First Street and Rhode Island Avenue, NW. When the tunnel is complete, it will hold more than eight million gallons of combined stormwater and sewage. A temporary pumping station will carry wastewater to the sewer system once rains subside. The First Street Tunnel Project requires four surface construction staging areas in a well-established and populated community. In 2014, all four areas began construction, along with sewer diversion chambers and structures that will direct stormwater and wastewater flows into the storage tunnel.

This construction will be a temporary disruption; however, DC Water has been working with the local community through regular meetings to minimize these construction impacts. A 24/7 hotline, alternative parking areas and a shuttle service were established to lessen impacts to residents. DC Water is committed to collaborating with the community throughout construction, which is slated for completion in 2016.

Eventually, the First Street Tunnel will connect into the 13.1 mile new tunnel system conveying wastewater to the Blue Plains Advanced Wastewater Treatment Plant.

Another flood mitigation project completed in 2014 was the repurposing of an underground tank at the McMillan site to temporarily store approximately three million gallons of stormwater during heavy rains.



#### WATER DISTRIBUTION UPGRADES

This year, the heartbeat of DC Water's water distribution system, the Bryant Street Pumping Station, underwent a major upgrade. The pumping station and many of its transmission pipes have served the District for more than a century, receiving drinking water from area reservoirs and pumping it throughout the city. To continue to provide high quality drinking water to customers, DC Water replaced 5,100 feet of transmission pipes this year. The first phase of the project was completed a year ahead of schedule.

The second phase of the project involved replacing valves, a critical part of infrastructure. The Authority places a high priority on regular maintenance and replacement of old or defective valves. Properly functioning valves help control water flow through mains and lessens the impact of water outages.

DC Water aims to replace one percent of its mains every year. Responding to customer concerns, DC Water replaced mains in all eight wards, resulting in better water quality and system reliability, increased water pressure and maintenance of adequate flow throughout the system.



# Environmental Stewardship



#### **OVERVIEW**

DC Water has long been an industry leader in adopting advanced wastewater treatment practices and cutting edge technologies at the Blue Plains plant to comply with the strictest operating permits in the nation. 2014 marked the Authority's emergence as an environmental leader across a broad spectrum of initiatives that include improving the health of our region's waterways; reducing energy costs and carbon emissions; enhancing climate change resiliency; and advocating for sustainable management practices in the Potomac River watershed, the source of our drinking water.

#### CLEAN RIVERS PROJECT

Many District residents will never notice the massive tunnel system being constructed below their feet, but residents and visitors alike will benefit from dramatic water quality improvements in the region's waterways and improved flood protection upon the project's completion. DC Water's \$2.6 billion Clean Rivers Project is a solution to a problem faced by more than 700 U.S. cities: combined sewer overflows. Approximately one-third of the city is served by a combined sewer system, where a single pipe transports sewage and stormwater to DC Water's wastewater treatment facility. During heavy rainfall, these pipes overflow into our waterways, creating environmental and public health hazards. The fix is a remarkable feat of modern engineering and the largest public works project since the Washington Metro system was built. Once constructed, the tunnel system will capture 96% of the combined wastewater before it ever reaches Rock Creek or the Potomac and Anacostia rivers.

#### Green Infrastructure

In January 2014, DC Water proposed a modification to the Long Term Control Plan or Clean Rivers Project that will augment the tunnel system with green infrastructure (GI). GI practices allow rainwater to infiltrate into the ground. The proposal includes replacing the shortest tunnel from the existing plan with a \$60 million green infrastructure investment in the Rock Creek drainage area. Additionally, DC Water is proposing \$30 million of green infrastructure to reduce the size of the tunnel for the Potomac River. The modification will benefit ratepayers by spreading the construction costs over a longer period of time, while yielding water quality improvements and enhanced flood prevention earlier than the existing tunnel plan. The proposed changes are well-aligned with the District's Sustainable DC Plan, and the green infrastructure projects offer a wide range of economic, environmental and social benefits, including local job opportunities, increased property values, and air quality improvements.

#### Green Infrastructure Challenge

In partnership with the Environmental Protection Agency and the District of Columbia, DC Water launched a Green Infrastructure Challenge to encourage the development of innovative green infrastructure solutions by the design community. More than \$1 million will be awarded for the design and construction of winning projects, which included innovative concepts for underutilized open space and green infrastructure streetscape plans. The Challenge promoted the development of creative stormwater management solutions and demonstrated that these projects are not only feasible but effective for addressing the problems associated with stormwater runoff and combined sewer overflows.

 Fort Reno Green Roof & Other Green Infrastructure at DC Water Facilities DC Water's Clean Rivers Project plan includes the installation of green infrastructure features at DC Water facilities to reduce the amount of stormwater entering the sewer system. These projects are designed to capture rainfall from a minimum of 90% of storms in a normal year. The largest green infrastructure installation at DC Water facilities is a one-acre green roof that is located on top of the existing Fort Reno drinking water reservoir. DC Water also constructed a natural rainwater storage pond and pervious pavers at the Anacostia Water Pumping Station and a green roof on the East Side Pumping Station. Water quantity and quality testing was conducted before the installation of these features and will be compared to post-construction data to drive improvements to the design, construction and maintenance of future green infrastructure projects.

#### CLIMATE CHANGE RESILIENCY

DC Water is making its assets more resilient to changing temperatures and severe weather. At Blue Plains, construction continues on a sea wall to protect the plant from flooding during large storms. Sophisticated statistical modeling is being used to determine the optimal height of the wall, given current climate change projections. DC Water is also part of the city-wide flood mitigation team, which aims to

## **Environmental Stewardship**

CONTINUED

improve emergency response coordination between District agencies. FEMA awarded DC Water \$2 million for hazard mitigation efforts that will largely be informed by the updated Water and Sewer Facilities Plan. The plan will designate critical infrastructure and incorporate vulnerability assessments to evaluate potential impacts of sea level rise and increased storm frequency on valuable water and sewer assets. DC Water is finalizing a Climate Change and Sustainability Plan, which will serve as a roadmap for the Authority's climate change adaptation strategies. The recently-formed internal Climate Change Task Force will guide the implementation of these strategies and provide oversight for climate change response activities.

#### ENERGY + PLANT PERFORMANCE

As the largest electricity user in the District, DC Water is taking steps to significantly increase the amount of green, renewable energy that supplies the Blue Plains treatment plant. DC Water's CAMBI resource recovery project will create energy from byproducts of the wastewater treatment process, and we are examining the potential for an extensive solar array to offset a portion of the plant's energy demand. DC Water has also developed an Authority-wide carbon footprint model capable of tracking historical data and predicting the effects of future projects.

In addition, designs are being finalized for a state-of-the-art administrative building, which is projected to be given the highest performance certification by the U.S. Green Building Council for features that optimize energy efficiency and stormwater management. This world-class office building will represent DC Water's commitment to protecting the environment through sustainable energy and land use practices.

#### PROTECTING DRINKING WATER AT THE SOURCE

DC Water became an official member of the Potomac River Basin Drinking Water Source Protection Partnership, a voluntary association of water suppliers and government agencies that coordinate on the management and protection of the region's water supply. The Partnership utilizes a collaborative approach to address water quality and quantity concerns in the basin.

DC Water also coordinates with regional stakeholders to monitor threats to water quality and prepare for water emergencies through integrated response plans and contamination alert systems. In a letter to the Secretary of the U.S. Department of Agriculture, DC Water expressed concerns over the potential for hydraulic fracturing to be permitted in the national forest surrounding waters that feed the Potomac River. DC Water continues to advocate for a cautious management approach, given uncertainties about water quality risks associated with high volume natural gas extraction.



# Innovation

You could argue that water and wastewater systems have not changed all that much over the past century – or even longer – and the pipes, valves and fire hydrants out in the street maybe least of all. In fact, we're still using some of the infrastructure installed during the 1860's.

The reality is that DC Water operates in a changing environment, and to survive it can't remain stagnant. Upgrading the infrastructure is only part of the challenge. The Authority must also contend with more stringent regulatory requirements and rising costs that put a higher burden on ratepayers.

DC Water has tackled this challenge head-on with a proactive approach that embraces innovation in every facet of its business. Employees are encouraged to come forward with ideas to improve performance, and DC Water is constantly looking for and implementing new technology and methods to deliver the highest quality service as efficiently as possible. The result is an organization that stretches every dollar farther, while setting an industry standard for innovation.

There were many examples of this in 2014:

#### • Biosolids Management Program

Commissioning began for this new system (page 13) – the first of its kind in North America and largest in the world - which won't just increase capacity, it will also produce enough energy to power a third of the plant. Related research conducted in partnership with Virginia Tech found that class A biosolids help crops resist drought more than other fertilizers.

#### Deammonification

In 2014, DC Water also began construction of the largest anammox treatment facility in the world. This leading edge nitrogen removal process uses far less energy and requires less methanol, saving \$1 million a year. It was the culmination of years of award-winning research at DC Water.

#### • Intellectual Property

DC Water is proud to be at the cutting edge of technology in the water sector. This past year, DC Water was able to file three patents on technologies developed by the research team at Blue Plains. The first, AVN, is a novel technique for controlling the balance of different types of organisms in our treatment types. The second, S-Select, promotes better overall settling rates by selectively retaining fast settling solids using gravitational force. Finally, the third, not yet named, uses a set of screens to separate and retain certain organisms that are selected to perform specific function. The patents were filed with the United States Patent and Trademark Office and are currently awaiting review by patent examiners.

These patents, and the accompanying improvements to our own treatment process, are the results of years of research and collaboration with leading scientists around the world. In each case, the inventors have agreed to assign the patent to DC Water, which will take the lead in commercialization to bring these technologies to the broader market.

Two such arrangements were completed in 2014. DC Water has selected World Water Works to be the exclusive licensee for AVN, and, similarly, DC Water has selected Demon GmbH to be the exclusive licensee for S-Select. In both cases, DC Water has signed a Letter of Intent with the licensee, and final agreements are under negotiation. Both companies are leaders in wastewater technology and will work with DC Water to further develop the licensed products.

#### • Geotab Fleet Tracking and Dispatch System

DC Water has been integrating various digital information systems for some time. In 2014, the Authority took a major step forward with the roll-out of the Integrated Work and Resource Management Solution. Part of the program calls for placing location beacons in all DC Water vehicles. These locations are visible to the staff in our Command Center, who can coordinate the dispatch of work crews to problem locations. The integrated system allows orders to be issued and work to be assigned directly from problem reports. Most of the fleet was equipped with the devices this year; implementation is expected to be complete by early 2015.

#### • Solar Panel Project

Our process tanks at Blue Plains are vital to our operations, but the majority of the action takes place underground, and the surface area of the tanks, parking lots, and roof tops are largely unused. As part of our commitment to sustainability, and to reduce electricity costs, DC Water is examining the feasibility of installing solar panels in these areas to make use of the sunlight that falls on the plant every day. The project will cut our carbon footprint substantially once complete. In 2014, DC Water received bids from potential solution providers and expects construction to begin in 2015.

#### • Financial Innovation

In 2014, DC Water made history with its innovative financing solution to meet the challenge of funding its \$2.6 billion Clean Rivers Project by issuing the first century bond by a municipal water utility, the first certified green bond issue in the United States, and the first 100-year green bond globally. Read more about this groundbreaking deal on page 27.

#### Social Innovation

Ideas can come from anywhere, but often great ones never see the light of day. DC Water is excited to announce that planning for an open, social innovation program was conducted in 2014. This program will allow all DC Water employees to bring forward their ideas for improvement for discussion, revision, and ultimate implementation. In 2014, an Innovation Program Manager was hired to lead the effort and coordinate idea proposal and evaluation, and important planning and policy work was completed. The program will launch in 2015.



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The foundation of innovation at DC Water is a robust research and development program. Ongoing research helps DC Water remain proactive, anticipate challenges and ultimately better serve customers.

#### WASTEWATER TREATMENT RESEARCH

The Authority continually strives to improve water, air and biosolids quality and also researches new technologies that have the potential to make Blue Plains more energy efficient and sustainable. In 2014 DC Water was able to incorporate the results of this research to assist in the startup, design and operation of new upgrades at the plant.

DC Water also continues to collaborate with regional, national, and international universities and public utilities to conduct leading edge research. DC Water currently supports about 20 MS, Ph.D. students and post doctorates who are conducting their research on DC Water projects. Collaborating universities include Virginia Tech, University of Maryland, George Washington University, Howard University, Bucknell University, Columbia University, University of Michigan, North Dakota State University, Ghent University, University of Innsbruck and University of Queensland. Supporting organizations include USDA and the Metropolitan Washington Council of Governments. DC Water also has a strong collaborative relationship with the Water Environment Research Foundation (WERF). Technology projects are focused on reengineering existing infrastructure to achieve energy and carbon neutrality while continuing to meet ever-more stringent water quality permits.

## WASTEWATER RESEARCH HIGHLIGHTS IN 2014:

- Recycle stream derived from Blue Plains digested biosolids was treated in a lab scale process using specific microorganisms known as anammox similar to the full scale process currently under construction. A new approach for controlling the treatment process was identified to achieve the desired capacity that would be considered for full scale startup.
- Proof of concept of optimized nitrogen removal without methanol addition was demonstrated for summer conditions. The 200L pilot demonstrated the ability to achieve around 70% of total nitrogen removal without any external carbon addition. The next piloting step will be to demonstrate in a larger scale pilot under variable feeding and temperature conditions to evaluate process controls.
- New carbon storage approaches in the high rate secondary treatment were identified to improve organic carbon capture in the process and to improve gas production in the anaerobic digesters. Pilot testing is underway.

 Another pilot studied the rapid rise phenomenon in anaerobic digesters following thermal hydrolysis. The pilot testing conducted at DC Water and Bucknell University quantified the extent of potential rapid rise of digester solids in the anaerobic digesters associated with gas bubbles entrapment when mixing stops due to a power outage. Process engineering worked with the digesters designers to include provisions to safely and most cost effectively handle a rapid rise event.

- The DC Water research team developed a method to evaluate sludge conditioning and dewatering of the Cambi digested sludge. The method was designed to simulate the post dewatering facility [i.e. belt filter presses] and was able to determine an optimum chemical addition in the form of polymer, type of polymer and methods to improve filtrate quality.
- Research conducted at DC water evaluated the startup of the anaerobic digesters and the ability to ramp up at higher rates than

originally anticipated. The research showed that adding alkalinity can improve the ramp up rates without additional risk of failure. Based on these results the full scale digesters were supplemented with alkalinity and the ramp up rate was increased to accelerate the startup process.

- Integrating sludge from the nitrification & denitrification process into the secondary aeration tanks [AKA bioaugmentation] was found to improve sludge settling in the secondary clarifiers.
- Pilot testing established the feasibility of adding food waste to the anaerobic digesters and improved gas production. Results suggested a low nitrogen feedstock increases stability of digesters while simultaneously increasing gas production and a new revenue source. A task force was established to implement co-digestion demonstration.

#### WATER QUALITY RESEARCH

Research also helps DC Water find ways to improve water quality. The Authority is collaborating with Greater Cincinnati Water Works and the New York City Department of Environmental Protection to evaluate the effects of flushing on lead levels. Some homes in the District have lead service lines, and DC Water strongly encourages homeowners to replace these pipes. After these pipes are replaced, however, it's not uncommon for lead levels to temporarily rise. (Cutting pipe causes vibrations that destabilize the scale on the pipe. Scale particles are loosened and released.) DC Water is studying whether high velocity flushing will decrease or offset this phenomenon.

After several customers complained of discolored water in 2013, the Drinking Water Division researched the problem and found increasing levels of iron throughout the city and tied the problem to unlined cast iron mains. DC Water replaces approximately 11 miles of unlined cast iron pipe every year through its Small Diameter Water Main Replacement program. Thanks to this research, DC Water has narrowed the focus of replacement, emphasizing problem areas throughout the city. This year, DC Water has identified 20 additional miles of pipe for replacement and aims to replace four to five miles of this annually.

DC Water prioritizes main rehabilitation and research is helping to improve the process. Engineers are investigating more economical ways to assess pipes, which helps customers save money. Now engineers assess pipes based on the condition of the pipe along with the consequence of pipe failure. The program will allow DC water to identify where repairs are needed most and allocates funding to the most critical projects. It also helps determine the type of work that needs to be done and extends the life of the asset.

After two years of renovation work, the Blue Plains laboratory reopened in 2014. The original building, constructed in 1937, once housed the plant manager. Over time it was converted into a lab, but wasn't designed for that purpose.

The renovated building is now climate-controlled and has an additional wing with an office and an extra lab for biosolids research. Research is performed on the top level of the two-story building and production work—routine testing and samples—happens on the first level. About 3,000 analyses are done each month.

The work in the lab is an integral part of the Authority's research and technology program. Within the building walls, engineers and scientists conduct research 24 hours a day, seven days a week and 365 days a year. They focus primarily on how the plant can use less energy in its processes, reduce capacity requirements and probing new approaches to production.



## Innovation CONTINUED



#### **RECOGNITION AS INDUSTRY LEADERS**

DC Water has long been recognized as a leader by industry peers and regional partners. However, in fiscal year 2014, DC Water achieved greater national and international recognition in both quantity and quality of awards and honors, demonstrating leadership in research, operations, management, innovation and performance.

#### American Academy of Environmental Engineers and Scientists

- Walt Bailey received the 2014 Edward J. Cleary Award, which is given to an outstanding performer in the management of environmental protection enterprises conducted under either public or private auspices who have demonstrated exemplary professional conduct, personal leadership, originality in devising new environmental protection techniques and sensitivity and responsiveness to social, economic, and political factors in environmental protection.

#### Virginia Tech Academy of Distinguished Civil and

**Environmental Engineering Alumni** – Walt Bailey was inducted into the Academy of Distinguished Alumni (CEE Academy). The induction is based upon a review of overall career accomplishments and contributions to the profession.

American Water Works Association – George S. Hawkins received the George Warren Fuller Award from the Chesapeake section of the American Water Works Association. The award recognizes "exceptional and extraordinary" service and leadership in the water sector. Hawkins was recognized for his career in environmental protection and for his leadership at DC Water.

#### Water Environment Federation's Camp Applied Research Award

- Sudhir Murthy won this honor, bestowed upon individuals who demonstrate a unique application of basic research or fundamental principles through the design or development of a wastewater collection or treatment system.

#### Washington Business Journal Minority Business Leader

- Randy Hayman named one of the region's top 25 minority business leaders of the year.

#### American Academy of Environmental Engineers and Scientists

– Grand Prize for Research for developing a new approach for anammox retention in deammonification.

*International Water Association* – Global Honor Award in the Research category for mainstream deammonification in a collaboration with Hampton Roads Sanitation District, Singapore PUB and Strass AIZ.

American Academy of Environmental Engineers and Scientists
– Environmental Communication Award for Drink Tap

**National Association of Clean Water Agencies** – Platinum Award for Excellence in Management.

American Council of Engineering Companies of Metropolitan Washington – Engineering Excellence Merit Award in Design (DC Clean Rivers) American Council of Engineering Companies Maryland – 2014 Honor Award in Engineering Design (DC Clean Rivers)

**Engineering News Record Mid-Atlantic** – DC Water named "Owner of the Year."

**NACWA Peak Performance** – Gold Award for 100 percent compliance with NPDES permit during the entire 2013 calendar year (received in FY 2014).

**WEFTEC** – Residuals and Biosolids Committee: Platinum Award for 10 years of successful biosolids management

Public Relations Society of America / National Capital Chapter (PRSA-NCC) – Thoth Award (first place) in Social Media Advocacy for "Lady Bird Tweets"

**PRSA / NCC** – Certificate of Excellence (2nd place) in Social Media App for Tap It App

**PRSA / NCC** – Certificate of Excellence (2nd place) in Brochure, print for "Blue Plains Advanced Wastewater Treatment Plant Brochure."

**Government Fleet Magazine** – DC Water Fleet named 100 Best Fleets

**Government Fleet Magazine** – DC Water Fleet named Notable Leading Fleets

**Government Finance Officers Association** – Mark Kim received the 2014 Award for Excellence in Government Finance from the Washington Metropolitan Area chapter of the GFOA for leading DC Water's green century bond issuance.

**Government Finance Officers Association** – Certificate of Achievement for Excellence in Financial Reporting Program (CAFR Program)

**Government Finance Officers Association** – Distinguished Budget Presentation Award Program (Budget Awards Program)

**Professional Operator** – Gregory Stephens earned the Wastewater Collection Class II Professional Operator certification and designation, the industry's first professional certification for water and wastewater operators.

# 2014 Finance and Budget

## INNOVATIVE FINANCING

DC Water's culture of innovation also permeated its financial planning in 2014. The \$3.8 billion ten-year Capital Improvement Program (CIP) is predominately supported by retail and wholesale ratepayers, with spending now at the peak and driving rates higher.

The largest component of the CIP is the DC Clean Rivers Project, detailed earlier in this report. The huge tunnels under construction are expected to last well into the next century, but under traditional bond financing, would be paid for almost entirely by the current generation of customers.

Under the leadership of Chief Financial Officer Mark Kim, DC Water devised a creative solution to better match the financing of the tunnels with their life-expectancy. The Authority ventured into uncharted territory and became the first water/wastewater utility in the United States to issue century bonds with a 100-year final maturity. The \$350 million sale was also the first "green" bond issue in the U.S. debt capital markets certified by a third party. That introduced DC Water to a new pool of Socially Responsible Investment funds.

"This is the most significant validation an issuer can receive," commented Allen Y. Lew, then DC Water Board chairman. "The successful sale of these bonds, with a 100-year maturity, clearly shows the confidence of the market that DC Water will not only be here well into the next century and beyond, but also is well managed and financially sound."

CEO and General Manager George Hawkins added, "We have long understood both the immense environmental impact of the Clean Rivers Project and the remarkable lifetime duration of the tunnels. This issuance enables DC Water to spread the costs of the project over the minimum expected life of the tunnels and be supported by future ratepayers who will also benefit."

It was an innovative – first of its kind – solution, that now seems like a commonsense approach to a significant challenge, and one that many other utilities may try to replicate.



## 2014 Finance and Budget CONTINUED

#### FINANCIAL PERFORMANCE

DC Water ended fiscal year 2014 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 were \$473.8 million compared to last year's operating revenues of \$439.1 million.
- Operating expenses increased by \$2.1 million to \$356.0 million, or 0.6% due to increases in personnel, chemicals, supplies and electricity expenses.
- Capital assets, net of depreciation and amortization, increased by \$641.3 million to \$4.9 billion, or 14.9% as a result of capital additions in line with the Authority's approved \$3.8 billion, 10-year capital improvement program.
- Current assets increased by \$82.5 million to \$582.8 million, or 16.5% due to increases in cash, investments, and receivables from jurisdictions.
- Net position increased by \$144.2 million to \$1.4 billion, or 11.9% as a result of current year operations and capital contributions.
- Long term debt, including current maturities, increased by \$421.7 million to \$2.5 billion, or 19.8% due to \$450.0 million bond issuance in July 2014.

- Issued \$350.0 million of senior lien public utility revenue bonds. These federally taxable green bonds were issued at a fixed rate of 4.81% and a final maturity of 2114 to support the Authority's DC Clean Rivers Project. This borrowing was the first municipal century bond issued by a water authority in the U.S.
- Issued \$100.0 million of tax-exempt variable rate subordinate lien public utility revenue bonds maturing in 2050 to support the Authority's capital improvement program.
- 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 18th consecutive unmodified audit opinion on its financial statements.



#### September 30, 2014 and 2013 (in thousands)

#### CONDENSED STATEMENTS OF NET POSITION

Current assets Capital assets, net Other 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

Operating revenues Operating expenses Net non-operating revenues (expenses) Change in net position before capital contribution 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 act Net cash used in investing activities

Net (decrease) increase in cash and cash equival

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

2013	2014
\$500,250	\$582,782
4,292,765	4,934,018
261,486	289,563
5,054,501	5,806,363
11,335	10,768
412,768	434,141
2,100,495	2,520,935
I,345,937	1,511,240
3,859,200	4,466,316
1,042,620	1,130,952
29,010	28,863
135,006	191,000
\$1.206.636	\$1.350.815

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

	\$1,350,815	\$1,206,636
	1,206,636	1,125,953
	144,179	80,683
	94,690	58,310
าร	49,489	22,373
	(68,311)	(62,761)
	356,024	353,945
	\$473,824	\$439,079
	2014	2013

	2014	2013
	\$183,747	\$174,016
ivities	(135,739)	(133,973)
	(62,903)	(32,509)
ents	(14,895)	(7,534)
	277,573	270,039
	\$262,678	\$277,573



"We will innovate, we will be creative, we are open to any new technology and idea in order to deliver the best product at the best price for our customers. That's an attribute that is fundamental to DC Water as we go forward."

– George S. Hawkins

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