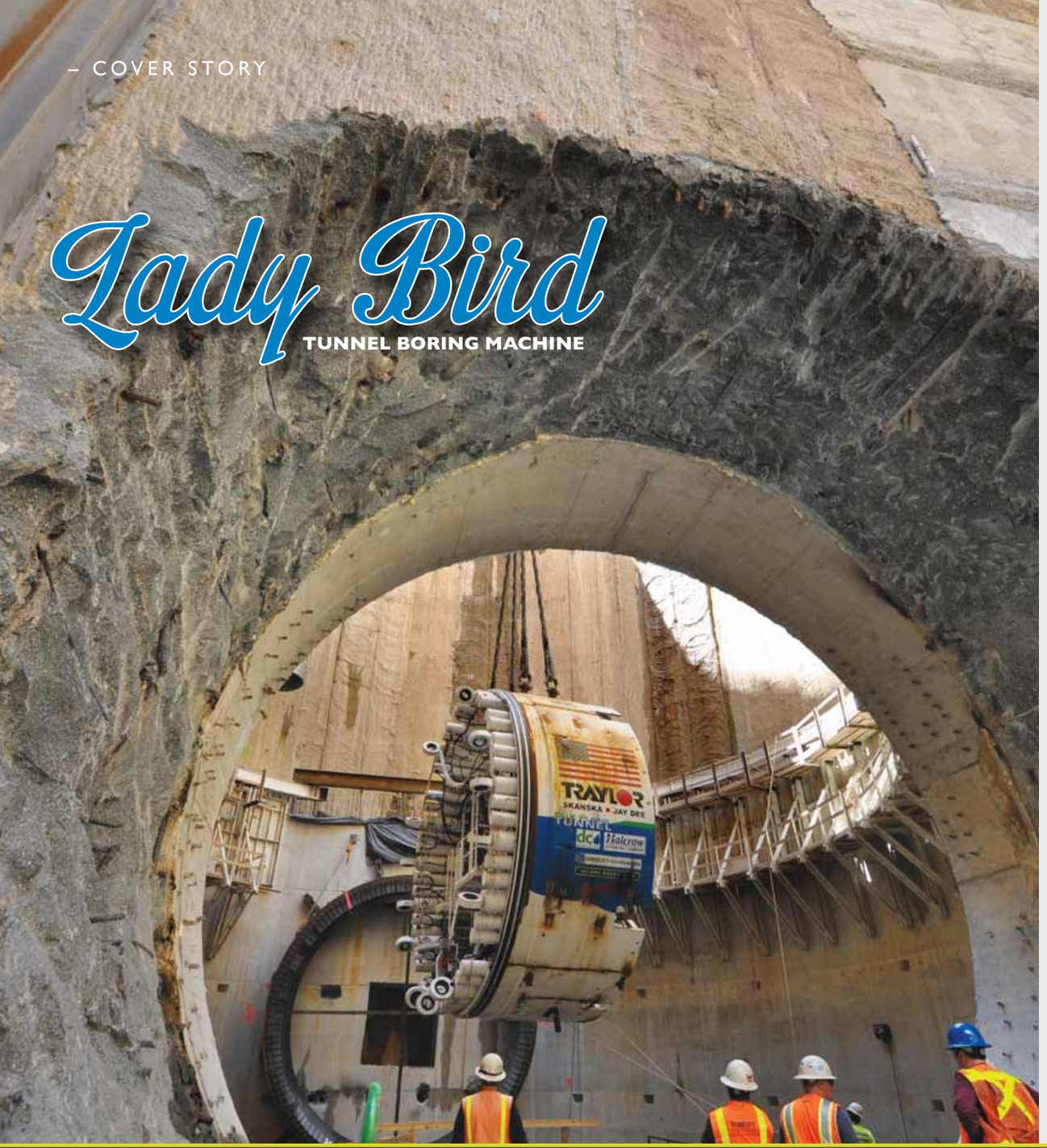
dc water is life®

2013 ANNUAL REPORT



LADY BIRD

On Monday, July 29, 2013, Lady Bird's cutterhead began turning and cutting into the thick wall of the 100-foot-deep shaft where she was readied for launch. Her initial progress was measured in inches, but still it was a monumental moment, years in the making, for the Clean Rivers Project.

Lady Bird is the massive tunnel boring machine (TBM) that is currently mining the Blue Plains Tunnel. Having set out from the Blue Plains Advanced Wastewater Treatment Plant, she is currently somewhere under the Potomac River, deep into a four-mile journey that will conclude near Nationals Park.

This is the first piece of a massive tunnel system that will greatly improve the health of our local waterways. The subterranean tentacles of the Clean Rivers Project will reach deep into the District to collect and store sewage and stormwater during heavy rains.

Lady Bird will soon be joined by sister TBMs mining the Anacostia Tunnel, the First Street Tunnel, and the Northeast Boundary Tunnel. Collectively they will reduce combined sewer overflows to the Anacostia River by 98 percent in 2022.

Additional tunnels are also planned along the Potomac River and Rock Creek. In those watersheds, DC Water also hopes to incorporate green infrastructure on an unprecedented scale. With an initial investment of $100 million, green infrastructure such as green roofs, rain gardens, tree plantings, rain barrels, bioswales and porous pavers would work in tandem with the tunnels to capture stormwater, while providing a host of other benefits. Green infrastructure will provide water quality improvements faster than building only underground tunnels, while improving air quality, creating jobs and expanding green space.

DC Water also hopes to minimize the financial impact of the Clean Rivers Project to our customers. Although the project is mandated by the federal government, ratepayers will pay for the majority of the construction, estimated at $2.6 billion, through their DC Water bills. The Authority is in discussions with the U.S. Environmental Protection Agency about a modification of the consent decree that could spread the cost out over more years to ease the burden on ratepayers.

Either way, Lady Bird will continue to march northward and is expected to finish mining the Blue Plains Tunnel in the summer of 2015.

443 foot long Tunnel Boring Machine

INSIDE

BOARD CHAIRMAN
Allen Y. Lew

As I mark my first full year as Chairman of the DC Water Board of Directors, It is my pleasure to present the 2013 DC Water Annual Report. While I previously served as a member of the Board, my new role has given me a unique perspective and appreciation for the incredible work underway at the Authority and detailed in this report.

It has been a pleasure working with the other Board members, and General Manager George Hawkins and his senior management team to ensure DC Water is not only meeting its current obligations, but also is adequately planning for the future and setting an ambitious course forward. To that end, the DC Water Board of Directors adopted the Blue Horizon 2020 Strategic Plan, laying out clear goals and objectives to ensure DC Water reaches its full potential as a world class utility. This is not an academic document that will gather dust on a shelf; it is a practical blueprint that management is committed to carrying out with detailed steps for implementation and monitoring, and the Board of Directors will hold them to that.

In 2013, we also celebrated the signing of a landmark agreement between the region's four largest jurisdictions, DC Water, and the Washington Suburban Sanitary Commission (WSSC) to fund operations at the Blue Plains Advanced Wastewater Treatment Plant. The Intermunicipal Agreement (IMA) was years in the making and will ensure service for two million area residents and 18 million annual visitors, cleaner rivers and a healthier Chesapeake Bay. Given the complexity of the pact and the multiple jurisdictions involved, its revision was no small feat; the previous IMA dated back to 1985.

Equally important for DC Water was the signing of a new collective bargaining agreement with the five unions that represent employees. The agreement includes consistent three percent pay increases each year for the four-year term of the contract, with additional performance-based bonuses. It is a testament to management as well as union leadership that they stayed at the table and in the end were able to find common ground and agree to equitable terms. An organization that truly values its employees is capable of great things.

Respect for customers is another hallmark of a world class organization. DC Water demonstrated this in 2013 with its commitment to address flooding and sewage backups in low-lying neighborhoods. I was pleased to co-chair the Mayor's Task Force on the Prevention of Flooding in Bloomingdale and LeDroit Park, which issued 25 recommendations. DC Water moved swiftly to implement significant engineering projects to mitigate the flooding, including the accelerated construction of the First Street Tunnel and the Northeast Boundary Tunnel. In all, the Authority is investing close to $700 million to provide relief to residents and bring an outdated, overburdened sewer system into the 21st century.

This is a period of tremendous capital investment for DC Water. In this report you will read about the Clean Rivers Project, Enhanced Nutrient Removal (ENR) Project and Biosolids Management Program – huge advancements in technology and engineering that do not come cheap. Managing DC Water's $10 billion Capital Improvement Program requires sound financial stewardship and the addition this year of a new Chief Financial Officer, Mark Kim, gives me great confidence that the Authority will complete this ambitious effort while maintaining its solid reputation on Wall Street and minimizing the impact on ratepayers.

As you can see, 2013 was a very busy and productive year for DC Water. In the following pages we will review Team Blue's many accomplishments and the year's financial performance. Transparency is another important organizational trait and one the Authority takes very seriously. Our customers are our shareholders are we must ensure they know exactly how their money is being spent.

Allen Y. Lew

GENERAL MANAGER
George S. Hawkins

As I enter into my fifth year as General Manager, I reflect on the issues that have most dominated my thoughts. The first two are the value of our work and those who do it. I did not appreciate the profound importance of the work until I joined DC Water and learned about the most important recycling program in our region.

Treating and delivering clean water from the Potomac River to every household and business in the nation's capital, and then cleansing it after we have used it and returning it back to the Potomac – is essential to every living organism. What other enterprise supports life in such a fundamental way?

I also have come to realize the dedication of the people who provide this service. Often without recognition, and in every type of weather and at all times of day, our work is constant and vital. Many of our customers do not think about the complex systems that are required to deliver water to everyone, and then take it back – until there is a disruption. Then our work becomes the most important issue in their day. Through it all, our team responds with vigor and skill, and embodies a level of problem-solving that matches the endless variety of challenges we face. Although no group of people is perfect and we can always improve, our personnel are some of the best public servants in a city full of them!

Yet it is a third realization that weighs on me: the reality that our ratepayers face escalating costs for as far as we can forecast into the future. Unfortunately, the bill for replacing a system that was installed more than a generation ago has come due. In parallel, we have enormously costly regulatory mandates to achieve, along with efforts to upgrade our services to take advantage of technological advances. I am struck that our budget for fiscal year 2014 represents disbursements of more than $1 billion (capital and operating) and marvel at the complexity and scale of what we seek to achieve. And that these costs must be covered by our customers.

The responsibility falls on us to justify this investment. One way is to continue to deliver our work with integrity and proactive customer service. Another is to be transparent in our performance, and provide a simple manner for our customers to evaluate our work. We will always be able to improve, and providing an easy way to measure our work and to focus our efforts is paramount.

The third responsibility is to demonstrate that we are deploying every ratepayer dollar in the most efficient manner possible. This requires that we not only do our standard work quickly and well, but that we are also always investigating how we can innovate and improve our performance. Not only do we need to demonstrate that we need and use every dollar well, particularly funds associated with increasing rates, but that every dollar is going farther.

This report is premised on all of these realities: the worth of the work, the skill of our team, and the care we devote to investing every penny from our customers wisely. Whether it be technical, like the vast program we have developed to save funds by generating clean energy at Blue Plains, or process oriented, like the new location and procedures used to speed responses on permitting requests, we must demonstrate an organizational and person-by-person commitment to innovation that can reduce the cost of doing our work, even as the amount of work continues to expand.

Ultimately, I love our work, like most at DC Water, due to all three of these issues. It is the third, though, that I pledge to report back to our customers diligently in the days ahead: how we are determined to invest every dollar as if it were our last, and make each one go farther by being on the innovative cutting edge.

George S. Hawkins

DELIVERING LIFE SUSTAINING SERVICES

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 1,080 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 2013, DC Water pumped an average of 100 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, 37,105 valves, and 9,343 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 1,800 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 Pinterest. 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 remaining 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 1,000 people toured Blue Plains in FY 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 introduced its first payroll deduction option for employees to contribute to the SPLASH (Serving People by Lending a Supporting Hand) Program, which resulted in $28,807 in pledges/donations.

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 General Manager reports to the Board and manages the daily operations and performance of the enterprise.

FY 2013 BOARD OF DIRECTORS / 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:

- **Environmental Quality and Sewerage Services**, Robert Hoyt, Chair
- **Water Quality and Water Services**, Rachna Butani, Chair
- **Finance & Budget**, Timothy Firestine, Chair
- **Human Resources and Labor Relations**, Edward L. Long, Chair
- **Audit,** Bradford Seamon, Chair
- **Strategic Planning,** Robert L. Mallett, Chair
- **Governance,** Ellen O. Boardman, Chair
- **DC Retail Water and Sewer Rates**, Alan J. Roth, Chair

Principal Board Members

Allen Lew, Chairman
District of Columbia
City Administrator

Rachna Butani
District of Columbia
HRGM Corporation, Director

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

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

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

Bradford Seamon
Prince George's County, MD
Chief Administrative Officer

Carla Reid
Prince George's County, MD
Office of the County Executive, Deputy Chief Administrative Officer

Timothy L. Firestine
Montgomery County, MD
Chief Administrative Officer

Robert Hoyt
Montgomery County, MD
Department of Environmental Protection, Director

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

Robert L. Mallett
District of Columbia

Alternate Board Members

Terry Bellamy
District of Columbia
Department of Transportation, Director

Howard C. Gibbs
District of Columbia
Retired

Brenda Richardson
District of Columbia
Chozen Consulting LLC, President

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

Dawn Hawkins-Nixon
Prince George's County, MD
Department of Environmental Resources, Section Head

Kathleen Boucher
Montgomery County, MD
Assistant Chief Administrative Officer

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

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

Keith Anderson
District of Columbia
Department of Environment, Director

Executive Team

George S. Hawkins
General Manager

Leonard R. Benson
Chief Engineer

Mark Kim
Chief Financial Officer

Walter Bailey
Assistant General Manager
Wastewater Treatment

Katrina Wiggins
Chief of Staff

Randy Hayman
General Counsel

John Lisle
Chief, External Affairs

Charles Kiely
Assistant General Manager,
Customer Care and Operations

Thomas L. Kuczynski
Chief Information Officer

Rosalind Inge
Assistant General Manager
Support Services

EXTERNAL AFFAIRS and CUSTOMER SERVICE 2013

"Communicating with our customers is job one to me."
– General Manager, George S. Hawkins

Today, DC Water connects with more customers in more ways than ever before. From one-on-one appointments to public outreach events that reach thousands of people, the Authority is setting a high standard for customer service and communication, while constantly evaluating its efforts to ensure they are effective. DC Water also continues to break new ground as an industry leader in the use of social media, now meeting customers on popular new platforms including Pinterest, Instagram and Vine.

Communications, Marketing and Outreach

Our commitment to customer service and communication begins at the top. In 2013, General Manager George Hawkins again co-hosted community town hall meetings in each ward of the District with the ward Councilmembers. The meetings drew hundreds of customers to speak directly with the General Manager about the proposed budget and rates for FY 2014 as well as a variety of other topics.

DC Water also participated in more than 150 public meetings, presentations and events across the city. That included an exhaustive schedule of summer festivals, block parties, and even parades - excellent opportunities to interact with large crowds of customers and to actively promote our product: tap water. The Authority's outreach team is in such demand they even held tryouts to recruit new Water Drop mascots for public appearances.

The Office of External Affairs conducted another round of tap vs. bottled water taste test challenges in each ward, and continued to expand and market the TapIt® program, a network of businesses that provide free water bottle refills to the public.

During visits to District schools, DC Water engineers engaged more than 600 students in hands-on environmental lessons about water, wastewater, conservation and pollution. Many more school children and adults participated in guided tours of the Blue Plains Advanced Wastewater Treatment Plant.

Customer Service

DC Water employees have a new way to help customers who have trouble paying their water and sewer bills. For the first time, employees can contribute to the SPLASH emergency assistance program through a deduction on their paychecks. The effort has helped boost the SPLASH program by 20 percent over the previous year.

In 2013, DC Water moved its customer service center to a new location in a Gold LEED certified building. A better design and configuration reduces the space requirements, saving approximately $250,000 per year in rent expense, and facilitating greater collaboration among workers.

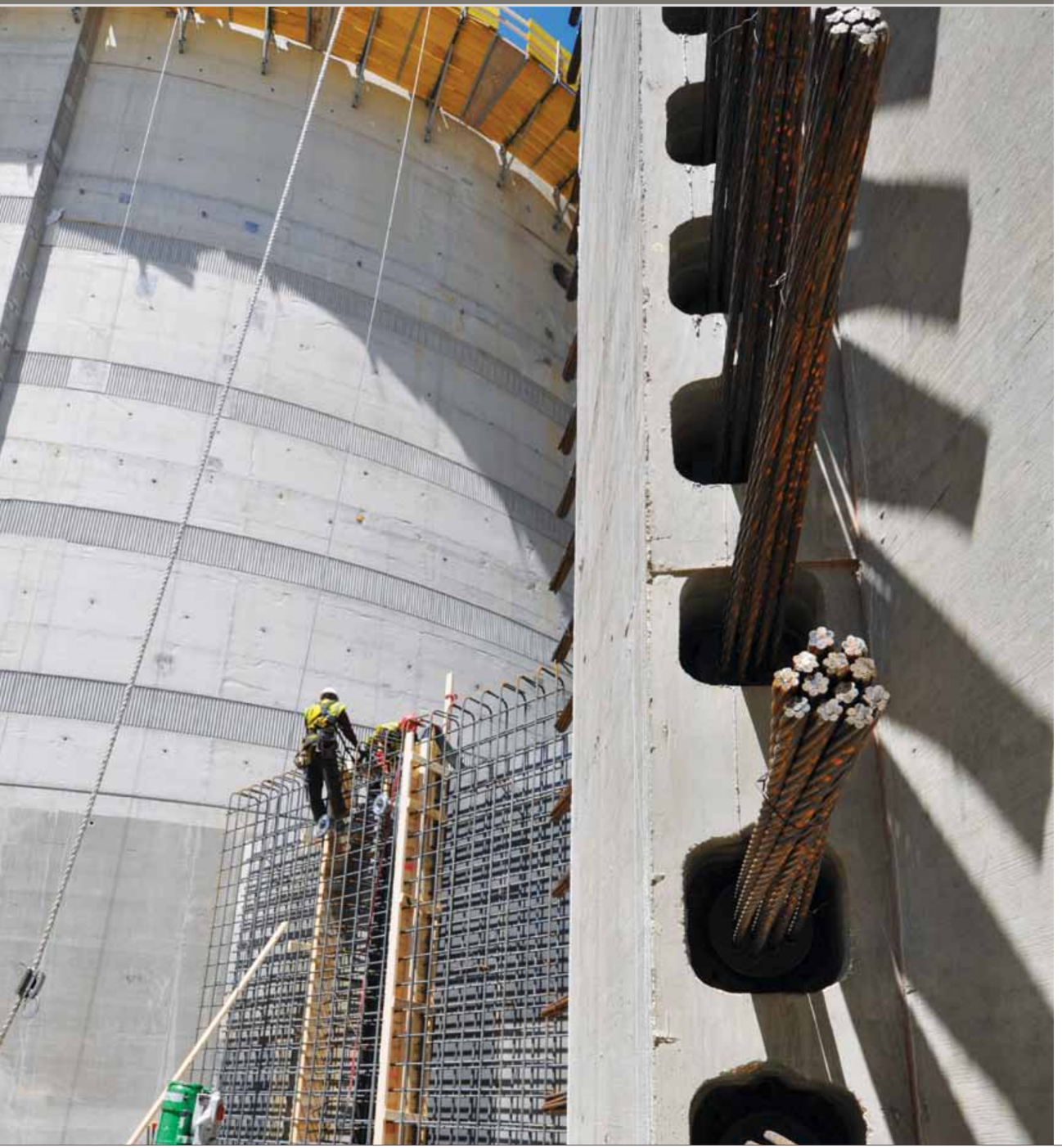
DC Water has also put a program in place to update its automated meter reading system using newer generation communication devices. It is anticipated that approximately 10 percent of the Authority's customers will have their meter reading devices replaced in FY 2014.

Government Relations

DC Water interacts with local, federal, and state governments to protect and advance the interests of the Authority and its ratepayers. DC Water is often relied on by legislative bodies to provide subject matter expertise and insight on local and national water policies. In 2013, DC Water officials testified before the U.S. Senate Committee on Environment and Public Works regarding nutrient trading, and the U.S. Senate Committee on Energy and Natural Resources related to aging infrastructure. Through our Government Relations office, DC Water also informs lawmakers about large capital projects affecting their constituents, such as the $2.6 billion Clean Rivers Project. In addition, DC Water was invited to testify before the DC Council to share information about its innovative $600 million digester project and biosolids program. Maintaining positive working relationships with government bodies helps ensure DC Water remains a world class utility.

That's just the tip of the iceberg; the infographic on the opposite page gives a snapshot of our overall customer service and communications efforts and their impact.

SPOTLIGHT ON ANAEROBIC DIGESTERS AND OTHER ENVIRONMENTAL PROJECTS



Exciting things are happening at the Blue Plains Advanced Wastewater Treatment Plant with cranes reaching skyward, construction vehicles humming and a tunnel boring machine underfoot (Cover story). These are the sights and sounds of three massive construction projects – totaling $4 billion—underway.

Anaerobic Digesters— From Waste to Power!
In 2013, four large concrete cylinders (anaerobic digesters) rose up in the middle of the plant. Next to them, shiny thermal hydrolysis vessels were installed. Three giant combustion gas turbines with heat recovery steam generators were also installed in 2013. Next year, Blue Plains will be the first facility in North America to use thermal hydrolysis to "pressure cook" the solids left over at the end of the wastewater treatment process. Exposing the solids to high pressure and high temperature weakens the cell walls so that during the subsequent step—anaerobic digestion—the cell walls can be easily broken. Bacteria will consume the solids and produce methane gas which engineers will capture and use to create electricity. A small electrical station is under construction on the plant where DC Water will harness the electricity and use it to power about a third of the treatment plant. In the end, the biosolids left over will be a higher quality—good enough for fertilizer—and DC Water will save millions of dollars by keeping it local. The commissioning process will extend through the end of 2014 and into early 2015.

Enhanced Nutrient Removal Facilities (ENRF)
Major construction continued in 2013 on the $977 million nitrogen removal program aimed at reducing nitrogen discharge into tributaries to the Chesapeake Bay. While a significant amount of nitrogen is currently removed from the wastewater treatment process at Blue Plains, these projects are all targeted at removing even more nitrogen, from 8.5 million pounds per year to an impressive 4.4 million pounds per year by 2015. The major components of this program include:

• ENRF – The construction of more than 40 million gallons of additional denitrification capacity to remove even more nitrogen using microorganisms to transform nitrogen from the liquid to gaseous form and keep it out of the Chesapeake Bay. This project is scheduled to come on-line in July of 2014.

• Secondary Upgrades (ENR-North) – The main goal of this project is to refurbish mechanical components, repair the tanks, provide additional automation and increase overall process reliability to remove key pollutants. It is expected that construction will be complete by 2015.

• Tunnel Dewatering Pump Station/Enhanced Clarification Facility (TDPS/ECF) – This project is the key interface between the DC Clean Rivers Project and the treatment processes at Blue Plains. Both facilities are currently scheduled to be on-line by March of 2018.

Beyond the Blue Plains facility, DC Water continued major infrastructure repair and replacement work, including a water main replacement program that is ramping up to one percent of the system per year, up from one-third of a percent a few years ago.

dc works

Hiring Local Workers

As highlighted on the previous pages, DC Water has a massive capital program with multiple large scale infrastructure projects currently underway at the Blue Plains Advanced Wastewater Treatment Plant and other sites across the city. These projects are largely funded by our ratepayers, and for that reason we launched the DC Water Works initiative in 2013 - a multi-pronged effort to boost local hiring on DC Water projects.

The program helps publicize construction jobs with DC Water contractors and now has three satellite job centers where candidates can apply for openings. More opportunities are being created through two incentive-based pilot programs that encourage contractors to hire additional District residents. DC Water Works is also collaborating with District job training and apprenticeship programs to identify qualified candidates.

Through the DC Water Works program, 63 candidates were interviewed for construction-related jobs in 2013 and 28 local residents were hired by contractors to work on DC Water projects.

Hiring Local Contractors

DC Water's active Capital Improvement Program is also benefiting local, small and minority owned businesses in the District and the region. In 2013 DC Water awarded 16 design, construction and construction management contracts with a total value of $713.4 million. What's equally impressive is that 48 percent ($344.7M) was committed to Minority Business Enterprises (MBEs), Women's Business Enterprises (WBEs), Local Small Business Enterprises (LSBEs) and Certified Business Enterprises (CBEs). Those contracts ensure that a significant share of the money the Authority is spending on construction stays in the service area, helps the local economy and creates jobs for residents.

TEAM BLUE

DC Water's position as an industry leader is due in large part to the caliber of employees that make up its workforce. Every day, more than a thousand DC Water employees provide the knowledge, skill and innovation that serve the District and its residents with reliable water and wastewater treatment service. They are thinkers and leaders. They are creators and problem-solvers. And they are dedicated public servants on whom the entire metropolitan area depends.

The ongoing commitment that employees have to DC Water and its customers shows in the years of their dedicated service. About 20 percent of DC Water employees have been working at the Authority for 20 years or more. One out of every 10 employees has served DC Water for at least 30 years. In all, there are more than 14,000 years of combined experience, and this collective knowledge propels DC Water to find ways to better serve its customers.

The employees with a keen understanding of the 1,350 miles of pipes that comprise the water system can address infrastructure challenges with remarkable precision. Knowing the intricacies of the 1,800 miles of sanitary and combined sewers helps pinpoint future problems. The thorough knowledge of wastewater treatment means better protection and preservation of the Potomac River and its delicate ecosystem.

These men and women are not only providers of a service, but also are ambassadors and advocates. Employees perform their duties with pride and continually educate each other by demonstrating their work. For example, employees in the biosolids department planted a garden fertilized with composted biosolids from Blue Plains. DC Water has been nationally recognized as a leader in biosolids management this year. Rows of healthy fruits, lush herbs and vegetables sprouted from the ground, evidence of the work put into biosolids treatment and DC Water's environmental sustainability efforts.

DC Water employees frequently lend their leadership and expertise to various fields and industries. The Authority boasts published researchers among its ranks and some employees have authored or co-authored publications on topics ranging from microtunneling to hydropower. DC Water is represented in several local, regional and national associations and trade organizations and employees' work is recognized around the globe.

Gus Bass' career at DC Water spans more than five decades. He started as a summer employee in 1957 and now runs the Engineering Management Services Branch of the Department of Engineering and Technical Services.

THE YEAR IN DRINKING WATER

DC Water is committed to providing safe, reliable drinking water at an affordable price. The District's water comes from the Potomac River and is treated by the U.S. Army Corps of Engineers Washington Aqueduct. DC Water purchases the water from the Aqueduct and closely monitors water quality throughout the distribution system. Extensive testing and infrastructure improvements ensure that high-quality water is delivered to every tap in the city.

Each year, thousands of water samples are tested to protect public health and meet federal drinking water standards. In 2013, DC Water met stricter water quality goals than those established by federal law. DC Water also conducts voluntary testing to address household water concerns and monitors water quality in schools and daycares. DC Water operates a hydrant flushing program to maintain the flow of fresh water through the system.

In 2013, drinking water test results demonstrated the continued decline in lead levels, which remain well below federal requirements. The number of lead service pipes in the city is decreasing due to a successful lead service line replacement program, and free lead test kits are offered to all single-family homes to identify potential lead sources. DC Water regularly attends DC Interagency Lead Coordination meetings and currently serves on the steering committee for an American Water Works Association project to develop a lead outreach guide for community water systems.

DC Water is partnering with the Metropolitan Washington Council of Governments to coordinate public notification among water utilities in the National Capital Region. This effort applies the framework outlined in the Center for Disease Control and Prevention's Drinking Water Advisory Toolbox to integrate the region's contaminant warning system and communication plan. DC Water's Public Notification Plan documents the Authority's communication strategies and serves as the foundation for effective regional collaboration.

Water Services Research
DC Water concluded a study with the Water Research Foundation that investigated lead corrosion after joining lead and copper pipes. The study found increased lead levels after connection with copper pipe, however, the lead levels declined after some months.

DC Water participated in a Water Research Foundation project to improve utility communications about emerging drinking water contaminants, such as pharmaceuticals and personal care products. The project evaluated consumer perception of emerging contaminants and investigated how these contaminants are represented in media, public health and water sector communications. Key recommendations were tailored for specific groups of communication professionals.

WASTEWATER RESEARCH

DC Water's world-renowned wastewater research program has two concurrent goals— to help engineers get optimum performance from the new facilities starting up in 2014, as well as finding new ways of accomplishing current processes, focusing on energy reduction, lower odors, cost savings and environmental protection.

DC Water continued to collaborate with regional, national, and international universities and public utilities to conduct leading edge research. The Authority supported 20 M.S. and Ph.D. students and post doctorates conducting their thesis 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.

Further, DC Water researchers worked with, and received funding from, organizations such as USDA and the Metropolitan Washington Council of Governments and the Water Environment Research Foundation (WERF).

One research project garnering attention for potential cost-savings in the millions is the Deammonification pilot, also called Demon. Using a bacteria discovered in the 1990's, the current nitrogen removal process may be simplified, reducing oxygen demand (lowering energy costs), reducing carbon demand (significantly reducing chemical costs), and reducing carbon dioxide emissions.

Other projects include:
- Investigating sludge thermal hydrolysis in a Cambi™ Pilot, to understand optimum operational settings.
- Piloting anaerobic digestion process following thermal hydrolysis to develop operating strategies and controls for optimum gas (energy) production.
- Understanding the production and mitigation of fugitive greenhouse gases in wastewater treatment plants.
- Evaluating fine bubble diffusion methods to increase aeration efficiency.
- Investigating the source of odors in treatment processes.
- Evaluating corrosion mitigation strategies in the collection system to improve the life of the existing infrastructure.

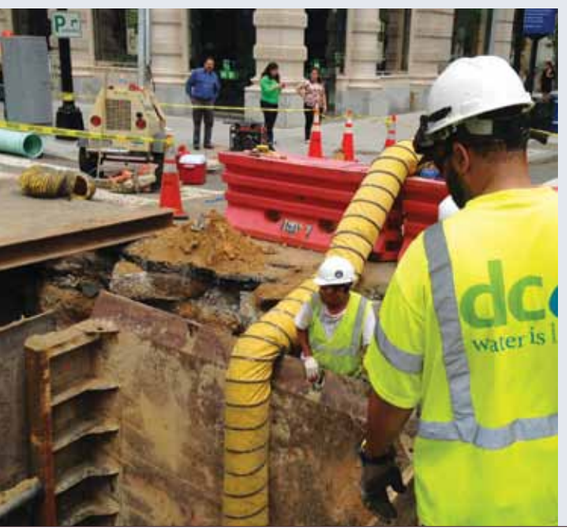
In 2013, DC Water researchers were in demand around the globe to speak at conferences and technical sessions. They published a half dozen research publications and applied for two new patents. DC Water will continue to focus on reengineering existing infrastructure to achieve energy and carbon neutrality while continuing to meet ever-more stringent water quality permits.

14TH STREET SINKHOLE

Most people likely don't think about the water and sewer infrastructure buried beneath their feet until something goes wrong, and something most definitely went wrong in late May 2013 that drew everyone's attention. A sinkhole opened up in the middle of the busy downtown intersection of 14th and F Streets, NW – one block from the White House - and exposed the fragile nature of the District's utility apparatus.

Concrete supporting the street gave way, crashing down on a 54" brick sewer main, built in 1897. An investigation revealed a communications manhole was installed right through a stormwater pipe, effectively cutting off the flow to the sewer itself. Instead, the rainwater from every storm was flowing out of the pipe into the dirt underground, eroding the material beneath the street – and most likely triggering the domino effect that ultimately led to the collapse of the roadway.

The resulting repairs took days – the obstacles included old trolley tracks and a web of other utility lines – while the intersection remained completely closed to traffic. DC Water and contractor crews worked around the clock to excavate and replace a long section of the sewer pipe, an effort that was not only labor intensive, but also very expensive. The price tag ran into the millions. With the hole patched and fresh pavement laid, there's no visible evidence now of what happened at the intersection, but the incident opened a lot of people's eyes to the complexity of what is underneath our feet, and how difficult it can be to fix when something does go wrong.



MAJOR TRANSMISSION MAIN REPAIRED AND BACK IN SERVICE

The Crosstown Tunnel is a seven foot-diameter water transmission main that delivers drinking water from the Dalecarlia Water Treatment Plant to downtown Washington, DC and east of the Anacostia River. It was built in 1985 by mining a tunnel through rock in a portion of Rock Creek Park, and then inserting a lining. In 2008, DC Water officials traced a leak on the Rock Creek Parkway to the Tunnel.

As part of the inspection process, DC Water used a remote operated submersible vehicle and eventually drained the tunnel for manned inspection to provide data. Engineers devised a repair plan and began construction in 2011. The main was taken out of service and drained. A steel pipe lining was installed over an 800-foot length of the tunnel, primarily under Rock Creek Park. During the repair, water that normally ran through the tunnel was re-routed using the many valves and redundant water lines.

During the summer months, DC Water took the extra precaution of putting the tunnel back in service since water consumption is much higher at that time of year. Then repair work continued in the fall. After two years of intense work to re-line the leaking portion, the $4.8 million repairs were completed in 2013, the tunnel was disinfected, the water was tested and this important transmission main was returned to service.

THE PROWLER AND THE CRAWLER

Meet DC Water's two tiny tacticians: The Crawler and the Prowler, sewer robots that serve as extra sets of eyes for the Authority's sewer department.

Both robots are wheeled devices with cameras. The Crawler and The Prowler explore the city's sewers, revealing conditions and detecting problems in sewer lines that cause backups and other problems. As they travel through a sewer line, footage is captured, recorded and displayed on a monitor inside of the crew's truck.

When the source of the backup is identified—usually tree roots or grease—technicians call a crew to unclog the sewer using high-pressure nozzles or cutters.

In addition to identifying the source of clogged sewers, the footage the robots collect is used to help settle disputes about public and private ownership. It's also used to help determine which agencies or utilities may be responsible for repairs. Video footage can also reveal poor workmanship on a sewer, which can eventually lead to failure.

Ultimately, the sewer robots are two of the most critical diagnostic tools for DC Water's sewer department. The alternative to getting comparable visual evidence—literally digging around to find the problem—is costly, time-consuming and a bother to homeowners.

Did you know?
Before utilities used robots to assess sewer conditions, technicians would use light to determine if a sewer blockage existed. The process, called "lighting the hole," involved a person shining a light into one end of a manhole. If the other person could see the light on the other side, that meant the sewer was open.

NORTHEAST BOUNDARY PROTECTION PROGRAM

The Mayor's Task Force on the Prevention of Flooding in Bloomingdale and LeDroit Park issued its final report in December 2012, which included 25 recommendations to mitigate the flooding in these neighborhoods. DC Water wasted no time getting started on short term efforts to assist residents, as well as the medium and long term engineering projects that will have the most significant impact.

Immediate Assistance
Working with other District agencies, DC Water provided rebates to residents to install backwater valves to prevent sewage from backing up into basements. The Authority also offered free engineering consultations to help residents flood proof their homes, and funded a Department of the Environment program to supply rain barrels to capture rainwater before it gets into the sewer system.

McMillan Project
In 2013 DC Water began construction on a project to transform an underground cell of the abandoned McMillan sand filtration site into a holding tank for stormwater during intense rains. Workers dug 25 feet below North Capitol Street to reach an existing storm sewer and connect it to Cell 14 at McMillan, which can hold up to three million gallons of stormwater. When the rains subside, and there is enough space in the pipes, this stormwater will be fed back into the District's sewer system and be conveyed to Blue Plains to be treated. This project is scheduled to be completed in spring 2014.

Green Infrastructure
DC Water is also installing green infrastructure at multiple locations along Irving Street, NW. Beginning in 2014, these rain gardens will use nature to absorb stormwater into the ground.

First Street Tunnel
As FY 2013 came to a close, DC Water selected the contractors to construct another project that will provide even more protection from flooding in Bloomingdale and LeDroit Park. A tunnel to be built under First Street, NW – north of Rhode Island Avenue - will store an additional eight million gallons of stormwater. This project was accelerated on the recommendation of the Task Force and the tunnel is expected to be placed in service by April 2016.

Long Term Relief
The First Street Tunnel will ultimately connect with other tunnels being constructed by the Clean Rivers Project, completing a new 13-mile long underground pipeline to Blue Plains. This work has also been accelerated and is scheduled to be completed in 2022, three years earlier than originally planned.

Top: With the National Park Service and civic leaders, DC Water opened the first of six odor abatement facilities along the 50-mile-long Potomac Interceptor sewer pipe system.

Near right: To prepare for the DC Clean Rivers Project tunnel system running underneath it, the Tiber Creek Sewer got arch support from the installation of these steel ribs.

Below: Repurposing an underground tank at the old McMillan Sand Filtration site for stormwater storage required first removing many tons of sand once used to filter drinking water.

Above: The General Manager and other DC Water staff participated in the Capital Pride Parade for the second year in a row. It's just one of well over 100 events on DC Water's outreach calendar each year.

Below left: Participants in DC Water's summer internship program were challenged to reach new heights – literally. The competitive program draws applicants from around the world.

Top right: Dozens of would-be water drops answered a casting call for the chance to serve as DC Water's mascot.

Bottom right: Recycling nutrients: compost made from biosolids help this garden grow tall. Employees are welcome to free compost for their home gardens.

2013 FINANCE AND BUDGET

Financial Performance

DC Water ended fiscal year 2013 with strong financial performance. These results included strong liquidity and cash position, solid operating revenues with tight control over expenses, positive budget to actual results. The Authority met or exceeded all financial targets and complied with Board policies and bond covenants.

Highlights

- Operating revenues remained stable at $439.1 million compared to last year's operating revenues of $440.6 million.
- Operating expenses increased by $10.9 million to $353.9 million or 3.2% due to increases in personnel and contractual services.
- Capital assets, net of depreciation and amortization, increased by $574.5 million to $4.3 billion, or 15.5%, 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 $78.6 million to $500.1 million, or 18.7%, due to increases in cash, investments and receivables.
- Net position increased by $81.9 million to $1.2 billion, or 7.1%, as a result of current year operations and capital contributions from the Federal government.
- Long-term debt, including current maturities, increased by $280.7 million to $2.1 billion, or 15.3%, due to the $300.0 million bond issuance in July 2013.
- Issued $300 million public utility subordinate lien revenue bonds with interest ranging from 4.75% to 5.0%, maturing in 2049 to support the Authority's approved $3.8 billion, 10-year capital improvement program.
- Senior debt ratings of Aa2/AA+/AA were reaffirmed by Moody's, S&P, and Fitch.
- 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 17th consecutive unmodified audit opinion on its financial statements.

September 30, 2013 and 2012 (in thousands)

CONDENSED STATEMENTS OF NET POSITION

	2013	2012
Current assets	$500,142	$421,495
Capital assets, net	4,292,765	3,718,243
Other non-current assets	282,336	275,398
Total assets	5,075,243	4,415,136
Current liabilities	412,768	314,219
Long-term debt outstanding	2,089,160	1,813,967
Long-term liabilities	1,345,937	1,141,461
Total liabilities	3,847,865	3,269,647
Net investments in capital assets	1,063,362	975,933
Restricted	29,010	27,297
Unrestricted	135,006	142,259
Total net position	**$1,227,378**	**$1,145,489**

CONDENSED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

	2013	2012
Operating revenues	$439,079	$440,566
Operating expenses	353,945	343,037
Net non-operating revenues (expenses)	(61,555)	(71,146)
Change in net position before Federal grants and contributions	23,579	26,383
Contributions of capital from Federal government	58,310	58,957
Change in net position	81,889	85,340
Net position - beginning of year	1,145,489	1,060,149
Net position - end of year	**$1,227,378**	**$1,145,489**

CONDENSED STATEMENTS OF CASH FLOWS

	2013	2012
Net cash provided by operating activities	$174,016	$162,307
Net cash used in capital and related financing activities	(133,973)	(52,790)
Net cash used in investing activities	(32,509)	(50,476)
Net increase in cash and cash equivalents	7,534	59,041
Cash and cash equivalents - beginning of year	270,039	210,998
Cash and cash equivalents - end of year	**$277,573**	**$270,039**

AWARDS

Utility Performer of the Year
American Water Summit

Finance

- Certificate of Achievement for Excellence in Financial Reporting for the Comprehensive Annual Financial Report
  Fiscal Year Ended September 30, 2012

- Government Finance Officers Association Distinguished Budget Award
  Fiscal Year Beginning October 1, 2013

Department of Wastewater Treatment

- Gold Award from NACWA for 100 percent compliance with our NPDES permit

- 2013 American Academy of Environmental Engineers and Scientists Research Grand Prize – Unlocking the Mysteries of Mainstream Deammonification – A Paradigm Shift in the Wastewater Industry

Engineering and Technical Services

- American Council of Engineering Companies (ACEC) Meritorious Public Service Award

- AGC's Special Achievement Award -for over 50 years commitment to the construction industry and the National Utility Contractors Association's DC Chapter Inaugural Award for 55 years "Continuing Support and Advocate of the Construction Industry"

water is life®

"Water is the most critical resource issue of our lifetime and our children's lifetime. The health of our waters is the principal measure of how we live on the land."

– Luna Leopold

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