



STEPHANIE  
RAWLINGS-BLAKE  
MAYOR

BALTIMORE CITY

**DPW**

DEPARTMENT OF PUBLIC WORKS

RUDOLPH S. CHOW, P. E.  
DIRECTOR

Fiscal Year

**2015**

# Annual Report

A renewed focus on customers  
and the future of our city



## Baltimore City Department of Public Works

We support the health, environment, and economy of our City and the region by providing customers with safe drinking water and keeping neighborhoods and waterways clean.

# CONTENTS



- Mayor’s Message** ..... 2
- Director’s Message** ..... 3
- DPW Organizational Chart** ..... 4
- Customers First** ..... 5
- New Employees Leading Now** ..... 7
- APWA Mid-Atlantic Chapter Conference** ..... 9
- Big Truck Day** ..... 10
- The Big Freeze** ..... 11
- Building for the Future** ..... 13
- Working for a Cleaner City** ..... 15
- Moving With Strategy and Purpose** ..... 17
- Managing Energy Costs** ..... 18
- Finance and Sustainability** ..... 19
- Understanding Your Water Bill** ..... 21
- Achievements** ..... 22

# MAYOR'S MESSAGE



A vital task for any municipality is providing a good, strong foundation for growth. One of the most basic elements of a strong foundation is protecting the health of our citizens. The Baltimore City Department of Public Works (DPW) plays a crucial role in this.

Having excellent drinking water is a prerequisite to having a good quality of life. The treatment and cleaning of wastewater is just as

important, because without that we would encounter unimaginable spread of disease and the pollution of the Chesapeake Bay — Maryland's economic engine.

**“Having excellent drinking water is a prerequisite to having a good quality of life.”**

Providing our citizens with a way to properly dispose of trash is also essential for quality urban living. On a weekly schedule, DPW collects solid waste and recycling. In addition, DPW's Bureau of Solid Waste collects bulk items, cleans and cuts vacant lots, eradicates rats, mechanically sweeps the streets, paints over graffiti, and does so many other tasks that cannot be taken for granted.

Our City owes a lot to the hard-working men and women of the Department of Public Works. I am proud of them and congratulate them on the publication of this Annual Report for Fiscal Year 2015.

Stephanie Rawlings-Blake  
Mayor



# DIRECTOR'S MESSAGE



**T**he Baltimore City Department of Public Works touches your life every day. Whether it is the water that you use, or the removal of your solid waste, we have one purpose — to serve you! It is my job to make sure that we do that in the most professional and effective manner. You need to be confident that your drinking water is of the best quality and that it is there when you need it. You should never have to think twice about

having your trash and recycling collected. You should also be afforded the best customer service when you call or visit us. We work for you!

I became DPW Director in February 2014. Since then I have acted to ensure that our agency is focused on our customers. Our first responsibility, as made abundantly clear by Mayor Stephanie Rawlings-Blake, is to make sure that our water customers have confidence in their water bills, and that they are able to talk to a real person in a timely manner if they need assistance or have questions. We have made great strides in improving customer service, and the new BaltiMeter program, with new automated meters and a new customer information system, is moving forward at a rapid pace to make our operations more efficient, reliable, and accurate.

In addition, the Mayor insists that we make the most efficient use of our resources, both physical and fiscal. I challenge our employees daily to make the best use of the resources available. We think and act proactively to prevent problems. We search for smarter ways of operating, whether adjusting a procedure or reshaping our organization. We work with other City agencies to find the best solutions for our customers and our City.

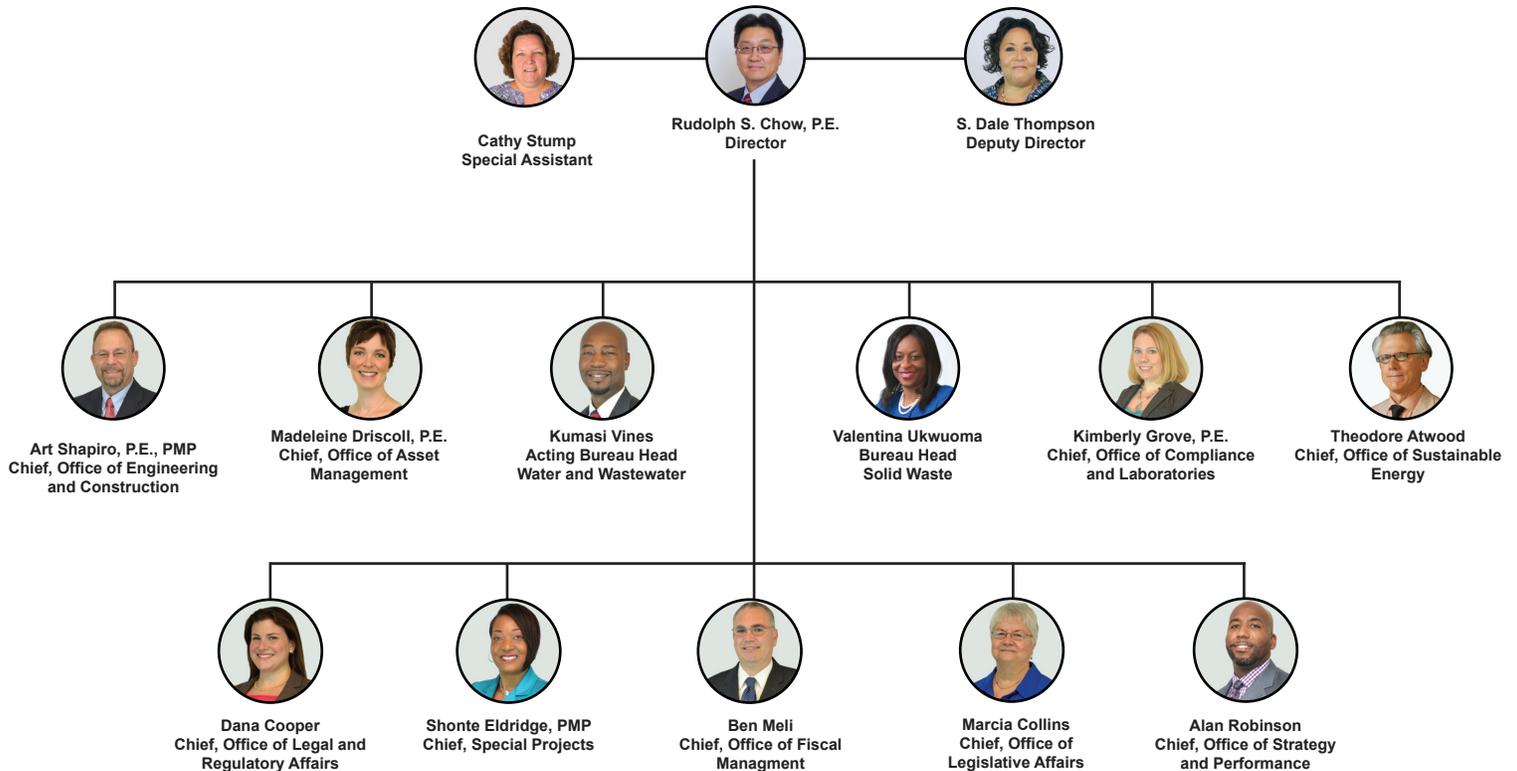
I am proud of the work that we are doing at DPW, and I hope you will find reasons to be proud as you read this Annual Report.

Rudolph S. Chow P.E.  
Director

A handwritten signature in black ink that reads "Rudolph S. Chow". The signature is fluid and cursive, written over a white background.



# DPW Organizational Chart



**The Baltimore City Department of Public Works strives to be one of the best-run Public Works departments in the country.** Part of setting this course has been optimizing DPW’s organizational structure. During fiscal years 2014 and 2015, DPW changed its organizational structure to allow the agency to operate more effectively and strategically. This reorganization has broken down silos to better support the sharing of ideas and know-how across divisions and bureaus.

Traditionally, DPW has had two bureaus, Solid Waste and Water and Wastewater, reporting to the DPW Director. The bureaus are DPW’s service providers; providing the

drinking water, providing the trash collection, and providing wastewater collection and treatment. In addition to these two bureaus, we now have offices that function across bureau boundaries and also report directly to the DPW Director: Asset Management, Engineering and Construction, Strategy and Performance, Compliance and Laboratories, Sustainable Energy, Legal and Regulatory Affairs, Legislative Affairs, and Fiscal Management. These offices primarily focus on the big picture, and long-term goals and objectives. The Offices of Sustainable Energy, Legal and Regulatory Affairs and Fiscal Management are the most recent additions to the organizational structure.

The Office of Sustainable Energy – formerly the Baltimore Energy

Office and a division of the Baltimore City Department of General Services – joined DPW in November 2014. As DPW is the City’s main user of energy, this new unit is helping the agency become more energy efficient and environmentally focused.

The Office of Legal and Regulatory Affairs, previously known as DPW’s Office of General Counsel, was created in April 2015. The office continues to be headed by Dana Cooper, Esq., and remains DPW’s first stop for legal issues.

In the latter part of Fiscal Year 2015, DPW began plans to create the Office of Fiscal Management. This new office will have cross-agency responsibilities and provide oversight of DPW’s revenue and expenditures.

# CUSTOMERS FIRST



**T**he Baltimore City Department of Public Works is focusing squarely on customer service. From an expanded Customer Support and Services Division to a dramatic restructuring of the executive leadership team, DPW Director Rudy Chow is making sure that the needs of customers are met quickly and correctly, and that every customer's interaction with DPW is positive.

In FY 2015, almost twice as many representatives were answering phones in the Customer Support Call Center than in prior years. Call waiting times are now only a few seconds instead of several minutes. Improved

training is helping to ensure that customers have a better experience once they speak with a representative. A correspondence Unit within the Customer Support and Services Division is helping customers who have questions about their bills to navigate the process smoothly.

DPW's meter reading operations are critical to a positive customer experience. To end estimated bills, antiquated interior water meters were eliminated. DPW located outdoor meters that had been landscaped or paved over. The Department has hired more meter readers. All of this resulted in a dramatic reduction of estimated bills.

Accountability is at the heart of DPW's year-long

organizational restructuring. Numerous functions that are not directly related to customer service – from finance to engineering to monitoring our water and wastewater quality – have been pulled from the Bureaus so they can focus on service to the public. Those divisions all report directly to Director Chow, who also instituted an Office of Strategy and Planning to make sure DPW sets and meets meaningful performance goals.

Knowing that infrastructure is prone to deteriorate with time, and that software needs to be constantly updated, Director Chow planned a dramatic upgrade of the metering and billing systems. The result is BaltiMeter, installation of automated meters, which promise a more efficient, reliable, and accurate water meter reading, and a new billing process that will make for an easier, more customer-friendly experience. In Fiscal Year 2015 more than 100,000 new, electronic meters were

installed in the City of Baltimore, with another 5,000 installed in the Bowleys Quarters section of Baltimore County. DPW employees and contractors are also working diligently on a new state-of-the-art Customer Information System that will give water users more information – and thus control over – their consumption.

## Director Rudy Chow is making sure that the needs of customers are met quickly and correctly, and that every customer's interaction with DPW is positive.

Even our new Office of Sustainable Energy has customer service as part of its mission. Not only does the Office search for ways for the City to use, buy, and generate power more responsibly, it helps connect small businesses and nonprofit organizations with grants to improve their own energy efficiency.

As we continue to find ways to improve service to our customers, DPW will continue to move toward its goal of becoming the best public agency of its kind. Period.

## Accountability is at the heart of a year-long organizational restructuring at DPW.



**Yvonne Moore-Jackson**

The billing section is the most visible part of the Customer Support and Services Division.

“The main thing that the customer sees is the billing section. When the public comes in to seek assistance, they need to see that we care about them,” said Yvonne Moore-Jackson, chief of the Customer Support and Services Division.

Employee training and development have driven billing section improvements, she said. “We had great employees who just needed some guidance and better training.”

Ms. Moore-Jackson said that she brought in an outside trainer to help ensure that the billing section understood their job duties, performance measures and were able to provide the public with consistent, accurate information about their water bills. “The citizen should be able to ask any question about their water bill, and we all should say the same thing,” she said.



# NEW EMPLOYEES LEADING NOW



DPW has a diverse, highly-skilled workforce which takes pride in serving the citizens of Baltimore City. DPW's more than 2,600 workers include engineers, accountants, and CDL (Commercial Driver's License) drivers. Each of these workers helps to keep the Baltimore region functioning. DPW continues to seek out the best and brightest to join our agency and to become future leaders of the Department. In addition, DPW is committed to removing roadblocks for existing workers who want to become better trained.

## **Natasha Neale** (DPW's 2014-2015 Employee of the Year)

As a child I was always fascinated by the Dr. Seuss classic, *The Lorax*. The image of the small mythical character whose sole duty is to speak for the trees always resonated with me; mainly because this small spirit had the fortitude to confront a problem that was bigger than him. So big, in fact, that it seemed impossible to enact change. But somehow his voice was heard and he made a difference and I learned that I could too.

Being a recycling associate for the City of Baltimore gives me a chance to be the difference I want to see. The environmental health of our City is fragile, and my job gives me a chance to provide a necessary public service to the city and our environment. By working with residents, businesses, and various non-profits to think of ways to reduce, reuse and recycle, I become a protector of our communities and waterways. Every day I have the opportunity to exercise my environmental stewardship by making Baltimore cleaner and greener. Every bottle recycled, bin purchased, and bag reused renews my commitment to growing our City by 10,000 families. The task at hand is difficult, and there isn't a simple answer, but I know sustainable change is on the horizon.

## **Maia Tatinclaux**

As an Engineer I at the Back River Wastewater Treatment Plant, I assist with sludge processing and focus on our anaerobic digestion and waste-to-energy operations. I work closely with area supervisors and their operators to resolve immediate problems and develop strategies for long-term process improvements. I also serve as a liaison between operations and outside contractors when specific jobs on the sludge side of the plant require a certain level of coordination. Sludge processing is very important for Back River to minimize costs of its disposal and maximize potential savings through energy recovery from byproducts.

As a new environmental engineer, I have really enjoyed learning all about our process here at Back River and solving problems as they arise. I hope to continue learning and eventually become a wastewater treatment subject-matter expert. Effective wastewater treatment is essential for environmental and public health — the two issues around which I am building my career.



### **James Phillips-Farley**

I work as a Staff Attorney within the Office of Legal and Regulatory Affairs. I was brought on board to handle Public Information Act requests submitted to DPW. The agency receives, on average, 20-35 requests per month. Most are relatively simple, but others require an extensive search throughout DPW. Frequently, these requests also involve issues that must be coordinated closely with the City Law Department. Working on these has broadened my knowledge and understanding of DPW's operations, including bidding/procurement, plans review, engineering, construction management, solid waste, and regulation of the water/sewer/storm utilities.

In addition to handling document requests, I work closely with Dana Cooper, Chief of the Office of Legal and Regulatory Affairs, and the City Law Department to advise DPW on various environmental and policy matters. As a government agency and a public utility, DPW is charged with managing numerous state/federal permits, as well as various legal requirements stemming from our obligations to regulators and to the public.

Each day brings something new — my work is fascinating and challenging. Many people enter law school professing their interest in environmental issues, but few are privileged to work closely on them post-graduation. I am very fortunate to work with (and learn a lot from) my colleagues in DPW and the City Law Department.

### **Germaine Bradshaw**

I have been employed with the Department of Public Works, Customer Support and Services Division since March 10, 2014. As a Data Entry Operator II, assigned to the Customer Correspondence Unit, I provide assistance to the citizens of Baltimore, as well as other customers, with regard to their water bills. It is my job to ensure that customers have a clear understanding of billing cycles, the fees associated with water bills, water meter sizes, water leaks, inspections, the informal conference process and billing adjustments.

I am also required to make sure that customers are aware of the various programs offered by the City of Baltimore that may assist them in paying their water bills. As a Baltimore City representative, I warmly welcome and assist customers who attend the informal conferences that are held to resolve customer water bill disputes.

After working for the Federal Government in the District of Columbia for more than 30 years, I was excited about working for the City where I was born and raised. Until I had the opportunity to work alongside my devoted colleagues, I was not aware of the enormous impact that the Department of Public Works has on the people of Baltimore City.

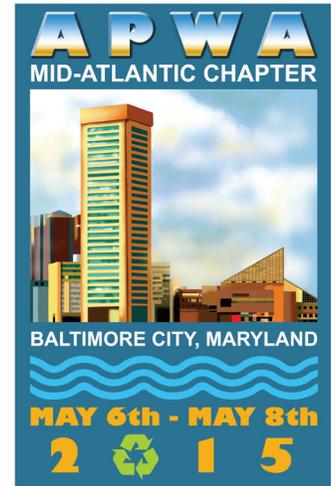
# 57TH ANNUAL APWA MID-ATLANTIC CHAPTER CONFERENCE

The Baltimore City Department of the Public Works hosted the 57th Annual American Public Works Association (APWA) Mid-Atlantic Chapter Conference. The conference was held May 6-8, 2015, at the Baltimore Convention Center in downtown Baltimore.

Public Works professionals, representing public and private industry from the District of the Columbia, Maryland, Virginia, and West Virginia, attended the first APWA chapter conference to be held in Baltimore in many years. The group received an official welcome to Baltimore from Mayor Stephanie Rawlings-Blake, U.S. Rep. Elijah Cummings, DPW Director Chow and Baltimore City Transportation Director William Johnson.

At the conference, industry professionals met for educational seminars and classes, and exchanged ideas, information, and insights. “The APWA Mid-Atlantic Conference provided a great opportunity for public works professionals to learn from each other and to build long-lasting professional relationships,” Director Chow said. During the conference, break-out sessions explored strategies to protect and improve communities.

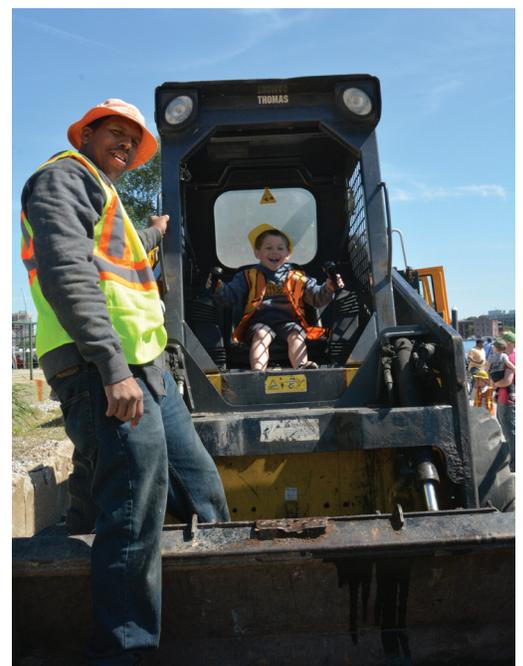
In addition, an Equipment Road-E-O displayed the City’s heavy equipment and provided a setting for some friendly competition. Some 100 workers vied to determine who is best at handling these vehicles. They put the vehicles through demonstrations of skills that they use on the job every day to serve the citizens of their communities.



**“The APWA Mid-Atlantic Conference provided a great opportunity for public works professionals to learn from each other and to build long-lasting professional relationships.”** - DPW Director Rudolph S. Chow

# BIG TRUCK DAY

This year, an estimated 6,000 visitors attended DPW's annual Big Truck Day, which was held on May 23, 2015, at the Baltimore Museum of Industry. The event showcased some of the largest vehicles used to provide services to Baltimore City citizens. The family-friendly event allows children to touch, sit in, and honk the horns on the vehicles, and gives their parents the chance to see how some of their tax dollars are spent. Vehicles on display included the Vector drain cleaning vehicle, mechanical street sweepers, solid waste loadpackers, and "Big Bertha," the City's largest tow truck. Vehicles used to make roadway repairs, and for public safety, and fire suppression were also on display.



# THE BIG FREEZE



**F**or Baltimore City Department of Public Works water customers and workers, the Big Freeze of 2015 was unlike any other winter in recent memory.

On a typical winter day DPW's Maintenance Division crews respond to 50 calls for loss of water service. But on Feb. 16, 2015, an unusually cold blast froze water services, busted lines, and left more than nearly 1,000 accounts without water.

Four days later an even colder snap took water service from another 1,100 customers. As days of bitterly cold temperatures turned into weeks of nearly continuous pipe-popping conditions, DPW ended up with a list of more than 6,000 no-water complaints, and hundreds more calls for water leaks.

Meanwhile, snow turned to ice in the City's alleys and streets, and the collection of trash and recycling – along with street sweeping – ran into logistical and physical challenges. When trucks did manage to get into the ice-slicked alleys, dozens of Solid Waste workers experienced slips and falls, forcing them temporarily off the job.

Early in the response, DPW realized that we would need help to fix all the breaks in water mains and service

lines. Contractors were called in to expedite this work. After finishing their regular jobs in other divisions, DPW workers with maintenance skills were sent into the field to remove broken water meters and help in any other way they could. Even office workers were called on to work extra hours, and Maintenance crews eventually reached mandatory 16-hour shifts.

Coordinating the response fell to DPW's Office of Information Technology (IT). IT sorted the data to make sure available crews had the resources they needed, and managed schedules to direct the work most efficiently. IT workers also put together the reports, tracking outages and restorations, that went out daily, keeping customers in the know.

The agency opened an Emergency Operations Center in the same building where its Maintenance Division keeps many of its vehicles and dispatches workers. Working out of this central location, leaders from IT, Maintenance, Engineering & Construction, Water and Wastewater treatment operations, Communications, and even Fiscal were able to talk to each other across the table, allowing them to better understand the challenges and plan the most efficient responses.

The crisis highlighted not just the critical nature of DPW's work, but the important role citizens can play in preparing for weather-related emergencies. The Communications and Community Affairs section worked with Baltimore area media to disseminate frequent reminders for residents to keep a supply of bottled water available, and to leave a thin, but steady, stream of water running through a faucet on the coldest nights to help prevent water from freezing and pipes from breaking. Faced with costs of repairing broken water service lines, residents learned the value of the private, optional HomeServe protection plans that DPW helped make available for homeowners seeking protection against water and sewer line disruptions.

**“It is not the cold, but the heat of winter that melts us into an effective and unified machine. God bless and thank all my DPW coworkers for all the help you've given me and my section.”**

**-Anthony Stevenson, Utility Maintenance Superintendent**

Other City agencies also joined the effort to help our customers. The Mayor's Office of Emergency Management and the City's Fire, Health, and Housing Departments checked on residents who had gone days without water, delivered bottled water, or located other resources for those in need.

By the second week of March, the coldest weather had passed, and crews were able to quickly restore service to all customers. And the thaw also allowed the Solid Waste crews to catch up on the trash and recycling pickups that they had been forced to miss due to the hazardous conditions. One week, Solid Waste crews worked as late as midnight to make sure the routes were completed and residents were back on schedule.



**Amy Purvis, P.E.**

Cityworks—computer software that manages service request (SR) information—was instrumental in helping DPW respond to the 6,000 no-water SRs received during the Big Freeze, said Amy Purvis, P.E., DPW's Information Technology chief.

“Without using this software, it would have been much more difficult to manage this large volume of work,” Ms. Purvis said.

Cityworks can track service request information such as contact data, comments, problem locations, account data, and prior history through all phases of the work cycle. “During the Big Freeze, Cityworks allowed us to pull out 1,000 work orders at a time, put them in a report, sort them by zip code, note needed information and quickly provide repair crews with this information,” Ms. Purvis said.

Since April 2014, DPW has been at the forefront among City agencies in using the Cityworks software.



# BUILDING FOR THE FUTURE

Anyone who lives in the Baltimore area knows that we have great-tasting water. They may also know that the system of pipes that carries the water to the customers tap is quite old and in need of rehabilitation. That is why the Department of Public Works has begun an accelerated program to rehabilitate our 4,000 miles of underground water infrastructure. Following a thorough analysis of the pipes — taking into consideration age, materials, soil conditions, and history of breaks, as well as the potential impact of an outage — DPW determines which lines need the most attention. Among these are East

Cold Spring Lane between Hillen Road and Grindon Avenue, and East Northern Parkway between Harford Road and Old Harford Road. Both locations had experienced multiple breaks and are now being replaced.

## Large Water Mains

Through the work of the Office of Asset Management, Baltimore is working smarter than ever in examining large water mains to prevent potentially catastrophic failures. Using the latest technologies — acoustic, electromagnetic, and digital video — along with visual inspections, the Department is identifying potential weak spots which can be replaced or repaired

BEFORE a failure can occur. This strategy will not only help to ensure a reliable water supply, it will also save money and prevent property damage.

## Headworks

When Baltimore's first wastewater treatment facility was constructed at Back River more than 100 years ago, it was state of the art. Over the century, this facility has undergone many changes to improve the quality of the outflow and to reduce odors. It is about to undergo another major improvement to address a flaw in the hydraulics. This is the Headworks project, which will enable the plant to better manage

wet-weather flows with new pumping, filtering, and storage facilities. The plant can currently receive 500 million gallons per day (MGD) of wastewater. Once this project is completed it will be able to handle up to 800 MGD. This means fewer sewer overflows onto streets, fewer backups into basements and fewer pollutants reaching the Chesapeake Bay.

### Stream Restoration

Repairs to an eroded creek embankment – which had undermined and forced the closure of a section of Moravia Road – were completed in May 2015. This section of northbound lanes runs adjacent to Biddison Run. Years of erosion had created a hazardous condition, as the stream approached the roadway. The right lane of northbound Moravia Road, just north of the I-895 ramp, had been barricaded because of the encroaching erosion.

In November 2014, Monumental Paving and Excavation Inc., was hired under an emergency contract to correct this hazard. The total cost was approximately \$700,000. Work consisted of stabilizing the stream bank, adding material to hold the bank in place, and building a retaining wall along the nearly vertical embankment. This emergency repair work will tie into stream restoration along Biddison Run, which will be designed to prevent erosion and also improve the water quality and natural habitat. Biddison Run downstream of Moravia Road was stabilized in 2005-2006. The total restoration is expected to be completed in 2018.

### Sewer Infrastructure

Baltimore is moving forward with construction phase of the Federal/State-mandated consent decree sewer line rehabilitation. This work is being done to bring the City into the long-term compliance with the Clean Water Act, and will repair a sewer system that is, in places, more than 100 years old. The rehabilitation work will improve sewage flows and pipe capacity, reduce or eliminate sewer overflows and street closures due to sewer pipe collapses, improve water quality in streams, and help to prevent sewer back-ups into private property. This fiscal year has a capital budget of over \$565 million for wastewater projects. Every part of the City is seeing sewer line upgrades.

### Stormwater

Over the course of FY 2015, emergency work was completed on a 10-foot diameter storm drain culvert at Washington and Eager Streets. A deterioration problem was first noted through a routine, proactive inspection in December 2014. This situation was monitored and further visually inspected for changes, leading to a decision to close off the intersection to traffic in late winter rather than risk a potentially catastrophic collapse. A contract was awarded to the infrastructure company Spiniello for emergency repairs.



**Art Shapiro, P.E., PMP**

**Art Shapiro**, chief of the Office of Engineering and Construction (OEC), is a professional engineer and a certified project management professional.

“Project Management is a culture that we are trying to ingrain throughout OEC,” Mr. Shapiro said. “It is a methodology that we know works.”

Every phase of a project is planned and managed to allow OEC to forecast and respond proactively to challenges. “We have our plan A and B in place so when a project hits a bump in the road, OEC is able to respond efficiently and never lose sight of the end goal — meeting the needs of the citizen.”

OEC provides technical services for DPW’s Water, Waste Water and Solid Waste divisions and manages planned capital construction upgrades of existing and new facilities and long-term construction projects.

# WORKING FOR A CLEANER CITY



Mayor's 2015 Spring Clean Up in Northwest Baltimore

**D**uring fiscal year 2015, the Baltimore City Department of Public Works, Bureau of Solid Waste, once again expanded the ways it demonstrates its commitment to proactively serve citizens.

Over the past year, the city-wide Street Sweeping program built momentum, and the municipal trash can pilot program was launched. Under the municipal trash can program, about 10,000 households in the Greater Mondawmin and Belair-Edison neighborhoods were given heavy-duty trash cans with attached, secured lids, and wheels that made the cans easy to move. Residents also received free recycling containers. The results were quick and dramatic, with increases in recycling tonnage, and fewer calls for rat abatement.

These efforts were followed up with an alley sweeping project in several neighborhoods to test the effectiveness of mechanical sweeping in keeping litter, and, vermin at bay. In addition, the Bureau of Solid Waste's Rat Rubout program quickened the pace at which we treat alleys and lots, with the idea of stopping rat populations before they can get established.

New street sweeping and waste-hauling trucks were added to bureau's fleet, providing a boon for our service reliability. We have also been providing more opportunities for citizens to recycle and properly dispose of Household Hazardous Waste.

## Rat Abatement

This new Rat Abatement program will cover 12,250 alleys (4,555 miles) — treating every alley every 20 days and repeating the process until every rat burrow is eliminated. This approach coincides with a rat’s 20-day gestation period, aiming to reduce reproduction and eliminate new generations of rats.

The former program was comprised of an eight-employee team, which conducted approximately 1,100 rodent inspections every two weeks; the new program requires 15 field employees. Inspectors work as a single team in each of the nine districts, one district at a time, inspecting and baiting as they go. With the increased workforce and the new and improved strategy, DPW expects to conduct more than 5,000 inspections every two weeks.

## The Baltimore City Department of Public Works, Bureau of Solid Waste, expanded the ways it demonstrates its commitment to proactive service to the citizens.

### City Street Sweeping

The City wide Street Sweeping Program operates in four quadrants that previously saw no service or, at best, scattered, inefficient service. This program celebrated its one-year anniversary in the spring of 2015. Instead of sweeping only the central areas of the City and some of our main commuter routes, all neighbor-

hoods are now being reached. Sweeping is done on an odd-even alternating basis on Wednesdays. Residents must move their cars from the sides of streets being swept in order to expedite the work. On the first Wednesday of the month, the odd sides of streets in Northwest and Southeast Baltimore are swept; the second Wednesdays are the even sides of those quadrants. The third Wednesdays are the odd sides of Northeast and Southwest; the fourth Wednesdays are the even sides of those areas.

### Alley Sweeping

As part of a pilot program, alleys in selected Baltimore neighborhoods now receive weekly mechanical sweeping. The custom-designed sweeping machines clean loose trash, grit, dirt, and oils from the alleys in several areas of Baltimore. The neighborhoods in the program are Belair-Edison, Panway-Braddish, Coldstream-Homestead-Montebello, Mondawmin, Parkview Woodbrook, Reservoir Hill, Washington Blvd/Pigtown, McElderry Park/Ellwood Park, and Sandtown-Winchester/Hollins Market. The neighborhoods in the alley sweeping program were chosen for their paved alleys, where the mechanical sweepers can be the most effective. Residents are urged to help increase the effectiveness of the alley sweeping by keeping trash cans and large items out of the alleys where they can be obstacles.

### Household Hazardous Waste Collection Program

During Fiscal Year 2015, Baltimore City residents increased by 10 percent their participation in the

City’s Household Hazardous Waste Collection Program. DPW accepts most commonly available consumer products, such as bleach, ammonia, and batteries. Collections averaged eight tons of hazardous waste per event. In FY 2015 a total of 56.6 tons of household hazardous waste was collected.

DPW collects these items at the Northwest Citizens’ Convenience Center, located at 2840 Sisson Street, just off the Jones Falls Expressway. Material is accepted from April through October with collections on the first Friday and Saturday of each month.

### Recycling

No longer will living in an apartment building keep many Baltimore City residents from participating in the benefits of recycling. As of Oct. 1, 2014, Maryland law required property owners or managers of apartment buildings or condominiums with at least 10 units to provide recycling services to their residents.

DPW has worked with residential property owners and managers to make sure that even more Baltimore city residents can reduce their contribution to the waste stream and help reduce City expenses by recycling in their buildings. There has been strong voluntary compliance with the new state mandate, with 88 percent of apartments in Baltimore City having submitted recycling plans to the Bureau of Solid Waste. The recycling plans must identify the vendor designated to remove recycling and present a map noting the location of recycling receptacles in the apartment complex.

# MOVING WITH STRATEGY AND PURPOSE

**I**ncreasingly, public utilities are developing innovative ways to engage stakeholders and put in place creative business strategies that will help their organizations perform at their highest level. At the Baltimore City Department of Public Works (DPW), such success requires careful planning to make sure our daily work activities are truly lined up with the organization's mission, vision, and values.

DPW Director Rudy Chow established the Office of Strategy and Performance (OSAP) to promote continuous improvement and efficient operations throughout the agency. OSAP will become increasingly responsible for monitoring, analyzing, and reporting on the performance of the organization. Ultimately, OSAP's business improvement efforts will help DPW better serve our citizens and customers.

In July 2014, DPW formally adopted its 5-year strategic plan, which was developed with input from more than 100 leaders from across the agency. OSAP is leading the implementation of this plan, working in concert with six Goal Teams comprised of employees from across DPW.



**OSAP Staff: Amanda Bates, Darin Bayley, Maxine Bickerstaff, and Alan Robinson, Chief of the Office of Strategy and Performance**

Goal Team members come from all levels of the organization, and possess administrative, operational, or subject matter expertise. The diversity of experiences and job responsibilities found within the teams has led to a collaborative environment with a high level of creative problem solving.

Accomplishments of the Goal Teams include:

- A revised recruitment procedure which will allow the agency to quickly and efficiently fill vacant positions — leading to better response times for customer service;

- Implementation of an internal service directory to help all DPW employees give the best possible customer service on initial calls;
- Creation of a permit compliance audit team responsible for conducting internal inspections and investigations to identify potential regulatory compliance issues; and
- Development of an all-inclusive infrastructure assets definition that encompasses the various operations found within DPW, allowing us to move forward with developing a comprehensive asset management plan for the Department.

# MANAGING ENERGY COSTS

**E**nergy is crucial to the mission of Baltimore City government, and especially to the Department of Public Works (DPW). Our one agency accounts for more than 50 percent of the City's energy consumption, due mainly to use of electricity to operate water and wastewater treatment plants, and to fuel trash trucks and other vehicles.

In November 2014 the Baltimore City Energy Office joined DPW, creating the new Office of Sustainable Energy (OSE). The office leads the City's efforts to purchase energy wisely, use less of it, and when there is an opportunity, to generate its own energy. OSE staff work with nonprofits, and small businesses to displace fossil energy use and cut energy costs.

OSE's FY 2015 accomplishments include:

- Initiating a program of offering low-interest, energy efficient-loans for non-



**OSE Staff: Ashley Chouinard, Ted Atwood, Anne Draddy, Julia Kalloz, Jason Mathias, and Mark Benson**

## OSE staff work with nonprofits, and small businesses to displace fossil energy use and cut energy costs.

profits and small businesses, with Customer Investment Funds from the Public Service Commission. The office worked with two nonprofit loan partners to market and execute the loans.

The first loan of \$1 million was signed in December 2014 as part of a \$14 million project to renovate the Green Street Academy. Currently under consideration are charter schools,

faith-based organizations, health care facilities, low and bridge financing for construction of moderate-to low- income housing, and neighborhood grocery stores.

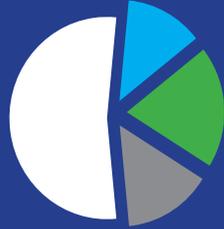
- OSE oversees the use of \$1 million in State grant money, in partnership with Healthy Neighborhoods, a program that seeks to strengthen underserved City neighborhoods, and with 11 nonprofits that

serve the City's homeless population.

- Energy efficiency upgrades were brought to 26 facilities, including new lighting, boilers, HVAC, insulation and cool roofs, saving nonprofits valuable dollars on their utility bills. Savings can be diverted to mission-focused items such as clothing, food and services. The grant was matched with \$262,000 dollars from OSE's Customer Investment Fund (CIF) grant, as well as BGE rebates and private investment.

- With funding from the Abell Foundation, OSE hosted a Climate Corps Fellow through the Environmental Defense Fund to write a management plan for OSE. The plan provides a summary of the City's current situation and a prioritized look at the future direction of energy use and costs. It will be the guidance document for the OSE and City government in relation to energy use.

# FINANCE AND SUSTAINABILITY



**T**he Baltimore City Department of Public Works spent more than one billion dollars in Fiscal Year 2015. **One-Billion-Dollars!**

The agency's total budget was \$1,155,374,744 — to be precise. Actually, DPW has topped the 10-digit threshold before, and likely will continue to do so for the foreseeable future.

The reason? DPW must pay for replacing and rehabilitating water and sewer infrastructure. Baltimore's water and sewer systems were built more than 100 years ago. Much of this century-old infrastructure will not support future use, and in many cases, current use.

More than half of what DPW spent in FY 2015 — \$654.5 million — was for capital improvement projects: long-term investments in pipes, treatment plants, pumping stations and transfer stations, and other infrastructure that will be in service for generations.

To secure a cleaner environment, DPW is spending hundreds of millions of dollars each year on projects mandated by our Consent Decree with Federal and State environmental regulators to upgrade Baltimore's sewer collection system, and on State-mandated improvements to our two wastewater treatment facilities.

DPW is spending hundreds of millions more in order to continue to provide safe, healthful drinking water, replacing or rehabilitating miles of old water mains and converting storage of treated drinking water from open-air reservoirs to covered storage tanks.

DPW's Office of Fiscal Management works to make sure it spends that money as carefully as possible. The capital projects, for example, are generally paid for over the course of 30 years, much as a mortgage on a house would be paid off. This can be done at current low-borrowing costs, and the expense of paying for today's infrastructure investments can be shared with future generations of Baltimore residents, who will still be using those capital improvements decades from now. The Office has done one financing plan with a 40-year payoff, to reduce the yearly expense even further, and is exploring other long-term options.

The Office of Fiscal Management is headed by Ben Meli, who reports directly to DPW Director Rudolph S. Chow, P.E. The Office of Fiscal Management provides fiscal oversight of the Department of Public Works, and is responsible for the preparation and monitoring of DPW's operating and capital budgets, rates and financial forecasting, capital project financing, procurement and inter-jurisdictional cost-sharing agreements.

# DPW FISCAL YEAR BUDGET 2015

	<b>Operating Budget</b>
Administration - DPW - Solid Waste	4,587,606
Public Right-of-Way Cleaning	24,284,646
Vacant/Abandoned Property Cleaning and Boarding	3,906,219
Waste Removal and Recycling	19,649,105
Waste Re-Use and Disposal	19,429,460
Administration - DPW - Water & Wastewater	40,704,033
Water Management	83,165,525
Water and Wastewater Consumer Services	21,320,793
Wastewater Management	122,136,733
Surface Water Management	17,179,788
Engineering and Construction Management - Water and Wastewater	125,224,763
Administration - DPW	1,439,590
Office of Sustainable Energy	17,833,513

## **Total Operating Budget**

**500,861,774**

## **Capital Budget**

Solid Waste	300,000
Water	246,773,000
Wastewater	403,710,000
Stormwater	3,730,000

## **Total Capital Budget**

**654,513,000**

## **Total Agency Budget**

**1,155,374,774**

# UNDERSTANDING YOUR *Water Bill*



The **Baltimore City Department of Public Works** provides water and sewer services for our customers. We do this with comparatively low water rates among East Coast cities. A Baltimore City water bill, has four charges:

## **WATER**

We provide reliable, highest-quality water to 1.8 million people daily.

## **WASTEWATER**

We collect, clean and purify wastewater and return it to the natural environment.

## **CHESAPEAKE BAY RESTORATION FEE**

This is a State-mandated charge to fund projects, such as sewage treatment upgrades, in order to protect our State's natural treasure.

## **STORMWATER REMEDIATION FEE**

The State of Maryland requires DPW to meet Clean Water Act requirements; this money is used for specific purposes related to stormwater pollution.



## **How DPW Invests Your Money**

### **WATER:**

Water main rehabilitation and replacement; enclosing our open finished drinking water reservoirs; new water meters; new billing system; facilities rehabilitation; reservoir protection.

### **SEWER**

Rehabilitate sewer mains; hydraulic improvements; Enhanced Nutrient Removal.

### **STORM DRAINS**

Storm drain rehabilitation; stream restoration; cleaning and preventing trash from entering our waterways.

### **CUSTOMER SERVICE**

More customer service representatives to quickly and efficiently address phone calls and correspondence.

# Achievements

## Fiscal Year 2015

### New Meters

Moved to full-scale implementation of the BaltiMeter project, installing more than 100,000 new meters by the end of the fiscal year — a significant milestone for DPW's new efficient, reliable, accurate water metering and billing system.

### Increased Recycling

Boosted recycling rates. The City collected 26,154.2 tons of recyclables in 2014, nearly a 5 percent increase over the 24,973.5 tons gathered in 2013. In addition, the City has shown an 11 percent increase in the recycling of polystyrene.

### Consumer Protection

The City partnered with HomeServe USA in August 2014 to roll out an optional program that covers the cost and facilitates repairs to exterior water or sewer lines on the homeowner's side of the property line. Such repairs can easily cost several thousand dollars. In addition to the core program, HomeServe has established a special fund to assist low-income Baltimore residents, who meet certain income eligibility criteria, with exterior line repairs.

### Cleaner Communities

Piloted Municipal trash cans program in the Belair-Edison and Greater Mondawmin neighborhoods, reducing service requests for rats, lowering tonnage of mixed refuse, contributing to higher recycling tonnage, and lowering Workers' Compensation claims by preventing on-the-job injuries for Solid Waste workers.

### Cleaner Alleys

Deployed three new alley sweepers to some City neighborhoods. The custom-designed sweeping machines clean loose trash, grit, dirt, oils, and other chemicals from the alleys. Pilot neighborhoods are Belair-Edison, Panway-Braddish, Coldstream-Homestead-Montebello, Mondawmin, Parkview Woodbrook, Reservoir Hill, Washington Blvd/Pigtown, McElderry Park/Ellwood Park, and Sandtown-Winchester/Hollins Market.

### Community Outreach

Negotiated an agreement with a local mountain biking organization. This agreement broke a long stalemate and helped assure access to specified trails at Loch Raven Reservoir, while protecting the forest buffer around this important resource.

### Industry Leadership

Swept the Maryland Chapter of the American Society of Civil Engineers' (ASCE) project award category — for minor and major projects. The Montebello Plant 2 Finished Reservoir received the Outstanding Civil Achievement Greater Than \$20 Million Award. In the category of Outstanding Civil Achievement Less Than \$20 Million, the ASCE recognized DPW's work on the Towson Finished Reservoir, a \$19 million project.

# Baltimore City Department of Public Works

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STEPHANIE  
RAWLINGS-BLAKE  
MAYOR

