# New York City FY2014 Water and Wastewater Rate Report

April 2013

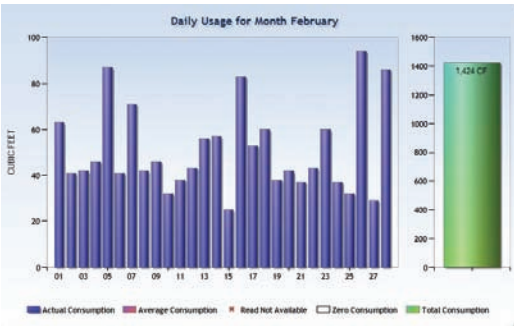
NEW YORK CITY WATER BOARD

City Water Tunnel No. 3

# CUSTOMER SERVICE

## TRACK YOUR WATER USE

Did you know that you can track your water use online? If you have a wireless meter reader installed, you can go online to see your daily water usage. The online tracking system enables you as a customer to manage your water use, reduce your water bills, and detect leaks more quickly. In addition, you can view your meter readings and see your payment and billing history online.




## SIGN UP FOR LEAK NOTIFICATION

**Get alerts when your water use spikes unexpectedly**

The Leak Notification Program enables you to be alerted about potential water leaks on your property. Sign up online to receive email notifications when your water use increases significantly over a period of several days, enabling you to quickly respond to potential leaks and fix them before they become a serious billing problem. Since 2011, the program has saved 37,000 customers $31 million in leak-related charges.

## GO GREEN

**Sign up for paperless billing**

DEP is now offering its customers the convenience of paperless billing. By signing up to receive your bills online, you'll save time and help improve our environment by reducing paper consumption. Instead of a paper bill, you'll receive an email notification when your next bill is due. You can then log in to My DEP Account to see an electronic copy of your bill.

***Enroll online***

**nyc.gov/dep**

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**Like us on www.facebook.com/nycwater and follow us on www.twitter.com/nycwater**

*The New York City Water Board (the "Board") has prepared this information booklet to inform the public on its rate proposals for Fiscal Year 2014 ("FY2014") and provide information on the financial condition of the water and wastewater system (the "System").*

New York City's System is among the largest in the world. The water supply system delivers more than one billion gallons of high quality drinking water every day to more than eight million people in New York City (the "City") and nearly one million residents in four counties north of the City. The City's fourteen Wastewater Treatment Plants (WWTPs) treat roughly 1.3 billion gallons of wastewater daily. The City's water and sewer infrastructure plays a critical role in promoting public health and the City's economic vitality. By 2030, the City's population is expected to grow by more than one million residents. To accommodate this growth, uphold the high quality and integrity of the City's drinking water, and ensure the long term viability of the System, the Bloomberg Administration has made a commitment to the City's water infrastructure in *PlaNYC*.

NEW YORK CITY WATER BOARD

The New York City Water Board's mission is to establish rates for and distribute the collected revenues of the Water and Sewer System of the City of New York, proactively considering the optimal level to achieve efficient financing of the System's infrastructure and sustainable provision of high-quality service at a fair price to our customers.

Water Board Members:

Alan M. Moss, *Chair*
Marcia Bystryn
Donald A. Capoccia
Alfonso L. Carney, Jr.
Mehul J. Patel
Arlene M. Shaw
Benjamin A. Tisdell


## NEW YORK CITY DRAINAGE AREAS AND WASTEWATER TREATMENT PLANTS

Revenue from rates charged for service covers the System's capital and operating expenses. Most properties are charged a metered water rate based on consumption. Approximately 5% are billed on the basis of flat-rate charges, either the Multi-family Conservation Program ("MCP") or "frontage" (i.e., the width of the property's street frontage, the number of building fixtures, etc.). Wastewater charges for meter-billed and flat-rate properties are levied at 159% of water charges.

## Water Board Rate Adoption Process

- The Board must adopt rates that will satisfy the revenue requirements of the System.
- The New York City Municipal Water Finance Authority projects debt service on bonds issued to finance water and wastewater capital projects and certifies the annual debt service to the Board.
- The City Office of Management and Budget projects the System's operating and maintenance expenses and certifies the annual amount to the Board based on the Mayor's Executive Budget.
- The System's consulting engineer certifies that the annual expenses and capital investment are reasonable and appropriate to maintain the viability of the System.
- The Board holds a public hearing in each borough of the City. (See schedule below.)
- At its Annual Meeting on May 10th, the Board adopts an Annual Budget based on the System's expenses that have been certified to it and adopts a rate, which will produce sufficient revenues to meet those expenses.

| Water Board Rate Adoption Schedule | |
|---|---|
| April 5 | Rate Proposal to Water Board |
| **April 29 - May 3** | Public Hearings |
| **May 10** | Water Board Meeting to Adopt FY2014 Budget and in-City Rate |
| **June 10** | Public Hearing on Upstate Rate |
| **June 14** | Water Board Meeting to Adopt FY2014 Upstate Rate |
| **July 1** | New Rates Become Effective |

| Schedule and Location of Public Hearings | | |
|---|---|---|
| **STATEN ISLAND** | Monday, April 29 - 7:30 pm | Joan and Alan Bernikow<br>Jewish Community Center<br>1466 Manor Road |
| **BROOKLYN** | Tuesday, April 30 - 7:00 pm | IS 228 David A. Boody<br>228 Avenue S |
| **BRONX** | Wednesday, May 1 - 7:00 pm | Hostos Community College<br>Savoy Building – 2nd Floor<br>120 East 149th Street |
| **QUEENS** | Thursday, May 2 - 7:00 pm | LaGuardia Community College<br>45-50 Van Dam Street – Room E-242<br>Long Island City |
| **MANHATTAN** | Friday, May 3 - 1:30 pm | City Planning Department<br>22 Reade Street - Spector Hall |

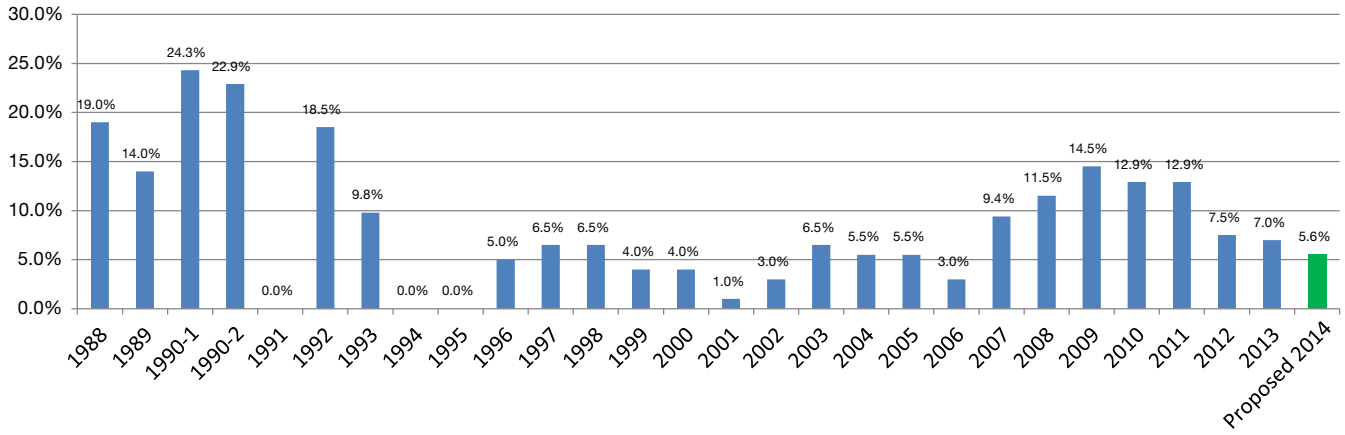
## FY2014 Rate Proposal

- Increase in-City water rates by 5.6%.
- The Service Line Protection Program will have annual rates of $53.88 plus sales tax per water service line contract and $95.88 plus sales tax per sewer service line contract.
- Properties automatically enrolled in the Multi-family Conservation Program in FY2013 will have until January 1, 2015 to install a meter and automated meter reading (AMR) device and until June 30, 2016 to install high-efficiency fixtures.
- Manual meter reading fee will be $25 for each manual reading requested by a customer.

## Typical New York City Charges FY2014 (with Proposed 5.6% Rate Increase)

| | FY2013 | FY2014 | Change |
|---|---|---|---|
| **Metered Customers, Rates per 100 Cubic Feet** | | | |
| Water | $3.39 | $3.58 | $0.19 |
| Wastewater | $5.39 | $5.69 | $0.30 |
| Combined | $8.78 | $9.27 | $0.49 |
| **Typical Metered Charges, Average Annual Charges** | | | |
| Single Family (80,000 gallons per year) | $939.04 | $991.44 | $52.41 |
| Multi-family Dwelling Unit on Metered Charges (52,000 gallons per year) | $610.37 | $644.44 | $34.06 |
| **Annual Multi-family Conservation Program (MCP) Charges per Unit** | | | |
| Residential | $894.15 | $944.22 | $50.07 |
| Low-use Commercial | $736.13 | $777.35 | $41.22 |
| Lodger/ Single-room Occupancy (SRO) | $253.56 | $267.76 | $14.20 |

## Water and Sewer Rate History (Percent Change)

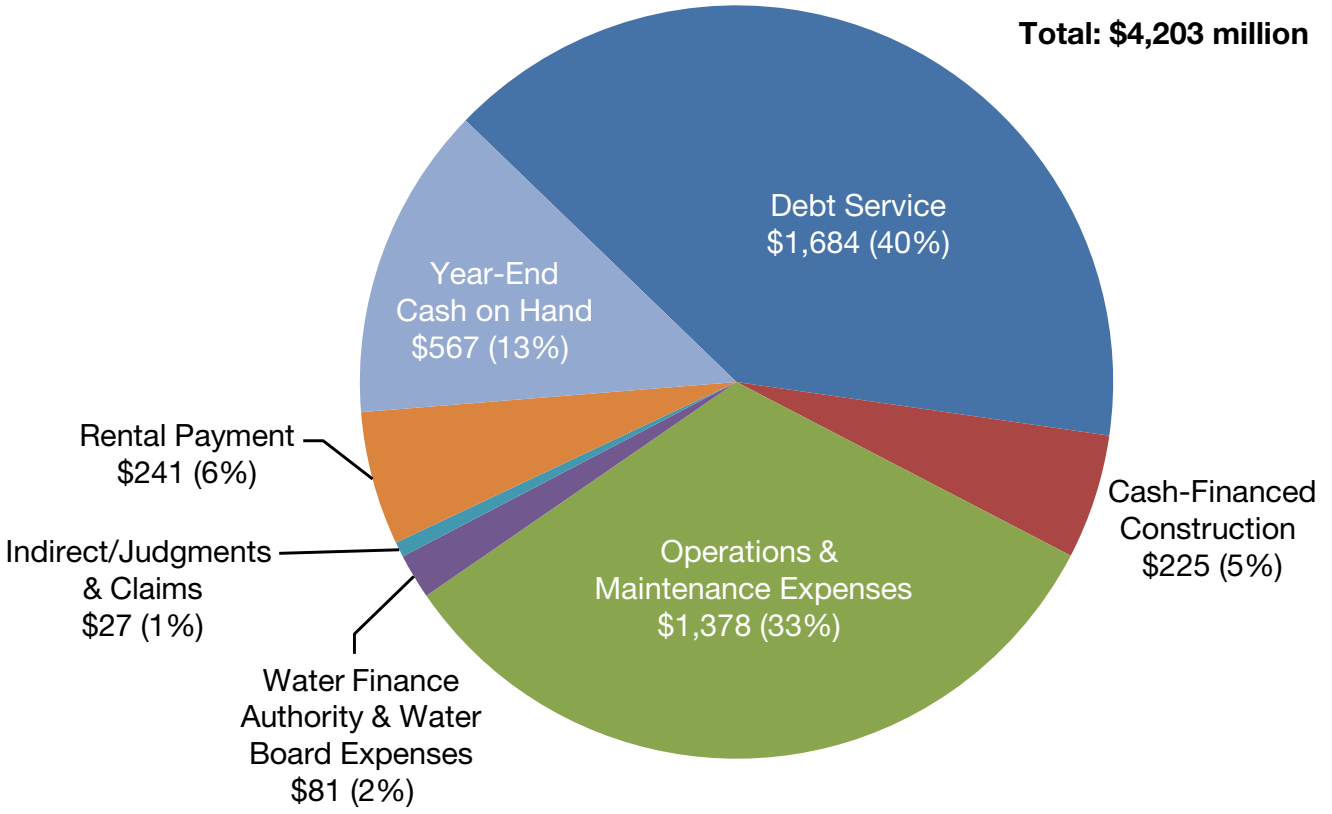


## FY2014 Expenditures

In the coming fiscal year, operations and maintenance expenses for this vast system will be 33% of the System's budget. These operational costs include all expenses to ensure and protect the City's water supply, treat and distribute drinking water to over 9 million customers each day, and treat over 1.3 billion gallons of wastewater per day. The operations of the System are immense, and DEP continues to implement improvements to deliver the best water possible to New Yorkers. As an example, in FY2013, DEP began operation of the Catskill/Delaware Ultraviolet (UV) Disinfection Facility. This facility is the largest of its kind in the world. It is able to treat 2.02 billion gallons of water a day with UV disinfection, which provides an additional form of disinfection to protect against *Cryptosporidium* and *Giardia*. The UV facility is one of the major reasons that the City has been able to avoid construction of a $10 billion-plus filtration plant for Catskill/Delaware water, allowing the City to remain one of five large cities to have the majority of its water from lower-cost, unfiltered sources. In 2013, DEP has also continued the Operational Excellence, or *OpX*, program, which is an in-depth review and transformation of DEP's operations. Through initiatives such as staffing optimization, improved procurement specifications and negotiations, and a prioritized replacement of large meters, DEP has already implemented changes that will save approximately $15.7 million in FY2014. The implementation of additional *OpX* initiatives will continue in FY2014.

In FY2014, the largest driver of the System's annual budget will be its debt service, accounting for 40% of the total revenue needed in FY2014. This debt service is a direct result of DEP's massive capital construction projects, which have been largely driven by unfunded mandates required by state and federal regulators. These mandated capital construction projects — such as the Croton Water Filtration Plant, Catskill/Delaware UV Disinfection Facility, and Newtown Creek Wastewater Treatment Plant — have been

### FY2014 Expenditures



financed by debt that will be repaid over the next thirty years. While they will all have significant benefits for the City's System, constructing them simultaneously during the peak of the New York area's heavy-construction market has been costly.

For fiscal years 2002 through 2012, 65% of DEP's capital commitments were directed for mandated projects, and from FY2002 through FY2013, net debt issuance by the New York City Municipal Water Finance Authority is expected to total $19.1 billion, for total outstanding debt of $29.2 billion. While the ratio of mandated to non-mandated capital projects is falling, there are many capital projects planned and underway to maintain the System, and DEP's current capital expenditure rate is approximately $6 million *per day* on construction, design and construction management.

## DEP Capital Program Overview

From FY2002 to FY2012, DEP committed $23.3 billion to its capital program, and DEP plans to spend over $2 billion on its capital program in FY2013. These investments have secured the City's System today and will benefit additional New Yorkers for generations to come. The facilities that DEP has constructed through its Capital Program have already made a significant impact on the City's waters:

- The upstate watershed protection program was a significant factor in the U.S. Environmental Protection Agency's (EPA) approval of a historic 10-year Filtration Avoidance Determination, or FAD, for DEP's Catskill/Delaware water supply systems.
- Effective handling and treatment of stormwater and wastewater have made the City's harbor waters the cleanest they have been in over 100 years, based on water quality sampling data.
- The multi-billion dollar upgrade at the Newtown Creek Wastewater Treatment Plant allowed the plant to achieve secondary treatment standards three years ahead of schedule, meaning that DEP is now meeting the Clean Water Act's 85% pollutant removal requirement harbor-wide, as recognized by the New York State Department of Environmental Conservation (NYSDEC).

Owls Head WWTP during Hurricane Sandy

## HURRICANE SANDY

Hurricane Sandy had a tremendous impact on the New York City region, including the System. DEP's operating, construction and support bureaus worked diligently in advance of, during, and after the storm to continue providing high-quality service to New Yorkers.

**Water Supply:** In 2012, DEP completed construction of the $1.6 billion Catskill/Delaware UV Disinfection Facility. This facility's UV treatment helped DEP to continue delivering clean drinking water to its entire service area without interruption during and after the storm.

**Water and Sewer Operations:** The Bureau of Water and Sewer Operations cleaned nearly 200,000 linear feet of sewers, inspected and cleaned 6,000 catch basins, and proactively shut 143 service lines to damaged or destroyed homes. DEP staff also set up 13 *Water-on-the-Go* fountain stations in the Rockaways and lower Manhattan, offering safe drinking water to many New Yorkers who did not have power in their buildings for internal distribution.

**Wastewater Treatment:** The storm submerged many wastewater treatment plants and pieces of electrical equipment under seawater, impairing their ability to pump and treat wastewater. Of 96 pumping stations, which help deliver wastewater to the treatment plants, 42 were damaged. Despite significant damage to 10 wastewater treatment plants and nearly half of pumping stations, all of the City's wastewater, except for that in the Rockaways, was receiving full treatment within 5 days of the storm, and 100% was treated within 2 weeks. The investments the City has made in upgrading its wastewater treatment plants, totaling $9.3 billion since 2002, were vital to the System's resiliency.

The total cost to DEP from Hurricane Sandy is estimated at more than $95 million.

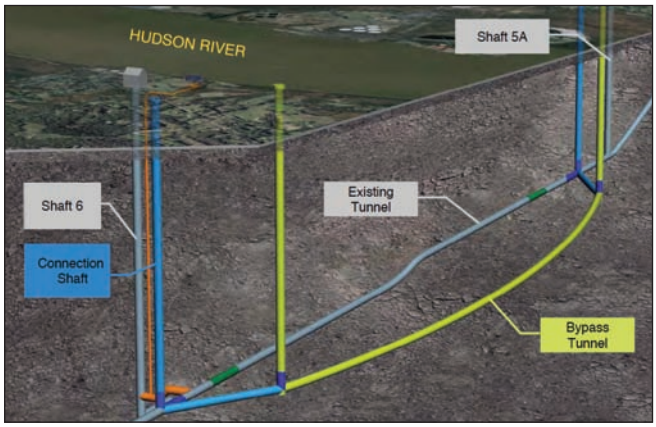
As encouraging as these developments are, DEP expects that the coming years will mark an active time for the City's water and wastewater infrastructure development. This year, DEP will activate the Manhattan section of City Water Tunnel No. 3, and in the coming years, additional multi-phase, long-term projects, such as the Croton Water Filtration Plant, will enter regular service. Ongoing projects, such as upstate land acquisition and maintaining infrastructure throughout the watershed to support the FAD, the rehabilitation of the City's WWTPs, and *Water for the Future*, which encompasses the planning, design and construction of permanent repairs to the Delaware Aqueduct, will continue to expand and enhance the City's System, enabling it to meet current demand and preparing it to serve an additional one million people by 2030.

The following paragraphs summarize some of the programmatic areas for capital investment as noted in the approved FY2014 Preliminary Capital Improvement Plan.


Newtown Creek WWTP

### $4.0 billion to Upgrade, Modernize, and Maintain Wastewater Treatment Plants (WWTPs) (not including CSOs)

Every day, the City's 14 WWTPs collectively treat about 1.3 billion gallons of wastewater. Both the effectiveness of these plants and the skill of their operations personnel are evidenced by the fact that NYSDEC removed the City's "Bubble Limit" (a special relaxed Citywide standard DEP met while continuing to construct plant upgrades at Newtown Creek) three years ahead of schedule and by the fact that the harbor waters surrounding the City are the cleanest they've been in over a century. As with most City infrastructure, the 14 plants are aging, and DEP must invest a significant amount of its resources to maintain them in a state of good repair and to modernize them to meet constantly-evolving state and federal standards.




### $1.7 billion for *Water for the Future* to Ensure the Dependability of the City's Water Supply System

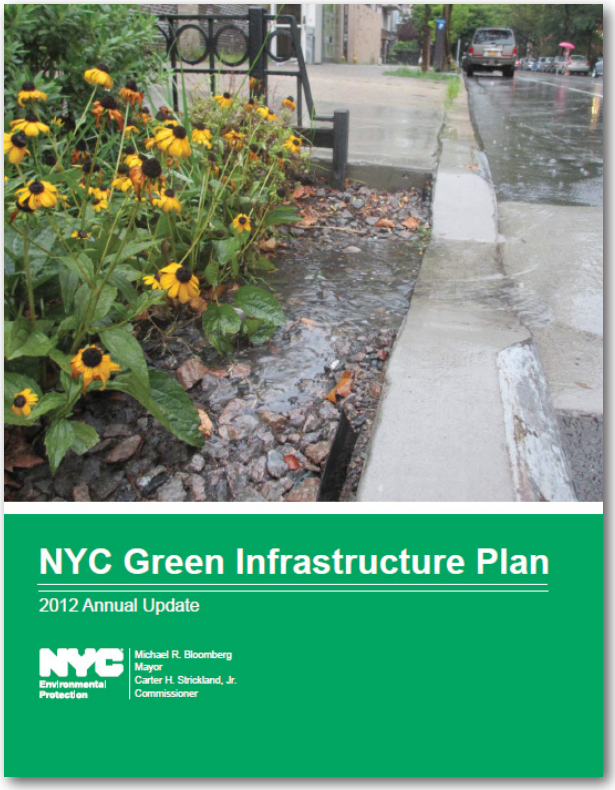
Nine million people throughout the City, Putnam, Ulster, Westchester, and Orange counties depend on the City's water supply system. Delivering about one billion gallons of water every day, the System has provided world-class drinking water to New Yorkers for generations. Ensuring that our historic infrastructure continues to provide the same level of service to all New Yorkers is a priority for DEP. City Water Tunnels No. 1 and 2 have been in constant operation since they first went into service in 1917 and 1936, respectively; and while they have steadily served New York for generations, both tunnels need to be inspected soon to prevent future maintenance costs from escalating. Other planned work includes conducting a dependability study for the City's water supply, implementing demand reduction initiatives and building the Cross River and Croton Falls Pumping Stations, which will be able to transfer water from the Croton system to the Delaware system during emergencies, planned service outages, and periods of drought.

In 2011, DEP unveiled *Water for the Future*: a comprehensive program to permanently repair the leaks in the Delaware Aqueduct, which supplies half of New York's drinking water. Based on a 10-year investigation and more than $200 mil-

lion of preparatory construction work, DEP is currently designing a bypass for a section of the Delaware Aqueduct in Roseton and internal repairs for a tunnel section in Wawarsing. Since DEP must shut down the Aqueduct when we are ready to connect the bypass tunnel, DEP is working on projects that will supplement the City's drinking water supply during the shutdown, such as developing the groundwater aquifers in Jamaica, Queens and implementing conservation measures, such as offering a toilet replacement program. Construction of the shafts for the bypass tunnel is beginning this year, and the project will culminate with the connection of the bypass tunnel in 2021.

### $2.6 billion for Upstate Watershed Protection

Maintaining the City's healthy, pure, and great-tasting water starts right at the source. Most experts agree that protecting the lands around a watershed is the best way to ensure the quality of the water itself. After creating an ecological buffer around its source waters, the City was awarded a 10-year FAD until 2017 from the U.S. EPA. The FAD, double the length of the previous one given to the City, testifies to the effectiveness of the City's comprehensive, ongoing watershed protection program. DEP owns and operates six WWTPs that serve upstate communities and has funded construction on seven additional upstate WWTPs; DEP has also paid for the upgrade of the existing WWTPs in the watersheds and for a portion of the operations and maintenance costs to provide the highest levels of treatment. Aside from building, upgrading, and maintaining wastewater infrastructure, DEP also works with local farmers to reduce pollution, constructs basic infrastructure such as dams, bridges, and roads and acquires land. Under the Bloomberg administration, land holdings in the watershed have doubled; the City already protects about 172,700 acres in the upstate watershed, and it is devoting funds to increase its holdings. In 2011, DEP was awarded a 15-year extension to its Land Acquisition Program.




In 2012, DEP signed a groundbreaking agreement with NYSDEC to reduce combined sewer overflows (CSOs) using a hybrid green and grey infrastructure approach. DEP's approach involved:

- Establishing the Office of Green Infrastructure (OGI),
- Working with the interagency Green Infrastructure Task Force to develop standard designs, specifications and siting procedures for Right-of-Way Bioswales,
- Launching the Green Infrastructure Grant Program, and
- Adopting a new rule for stormwater management in new construction.

DEP's OGI continues to implement Green Infrastructure policy and infrastructure by building green roofs, blue roofs, bioswales, rain gardens, and other types of green infrastructure across the city's combined sewer areas.


Paerdegat CSO Facility


City Water Tunnel No. 3

### $1.2 billion to Improve the City's Water Quality and Prevent Untreated Sewage from entering the Harbor (CSOs)

One of the goals of Mayor Bloomberg's *PlaNYC* — the City's comprehensive plan for creating a greener, more sustainable City — is to open 90% of the City's waterways for recreation by 2030. The funds in the current 10-year capital program will continue the City's successes in protecting local waterways. Programs such as CSO retention tanks, wastewater treatment plant upgrades, and sustainable stormwater management practices will help keep floatable trash, debris, oils, grease, and bacteria from entering our waterways. CSOs occur during especially wet weather when the City's 14 WWTPs are unable to treat all the wastewater and stormwater in the System. By updating our stormwater management system with both traditional mechanical upgrades (such as sewer construction and pumping stations), as well as green infrastructure (such as tree pits, permeable pavement, rain barrels, and green roofs), the City's waterways will continue to improve.

### $208 million to Complete City Water Tunnel No. 3, Stage 2 Manhattan Section Connections

When the Manhattan Section of City Water Tunnel No. 3 is completed this year, it will expand the City's water supply network and provide redundancy to City Water Tunnel No. 1. When it was first registered, City Water Tunnel No. 3 was the largest non-military contract in the western hemisphere. Construction on the 60-mile tunnel began in 1970, and much of the work is already complete and online; DEP activated portions of City Water Tunnel No. 3 in Bronx, Manhattan, and Queens in 1998. The next phase will include the completion of supply shafts in Brooklyn and Queens. Once Manhattan Stage 2 is activated and operation is steady and the Brooklyn/Queens section is completed and activated, both City Water Tunnels No. 1 and No. 2 can be shut down for inspection and repair. All told, City Water Tunnel No. 3 represents a $4.7 billion investment in the City's water supply infrastructure.

### $286 million for the Continued Construction and Completion of the Croton Water Filtration Plant (including Parks)

When operational in FY2014, the Croton Water Filtration Plant will have the capacity to treat 290 million gallons of water per day, 30% of the City's daily demand. This plant will filter water provided by the Croton reservoir system, the oldest and smallest of the City's three watersheds that has been surrounded by more development than the Catskill/Delaware watershed. This filtration plant will ensure the viability of the critical Croton reservoir system and secure the City's water distribution network. The filtration plant has been constructed beneath Van Cortlandt Park in the Bronx, and as a part of the site selection process for the contract, DEP agreed to work with the City's Department of Parks and Recreation to fund $200 million for developing parks throughout the Bronx.

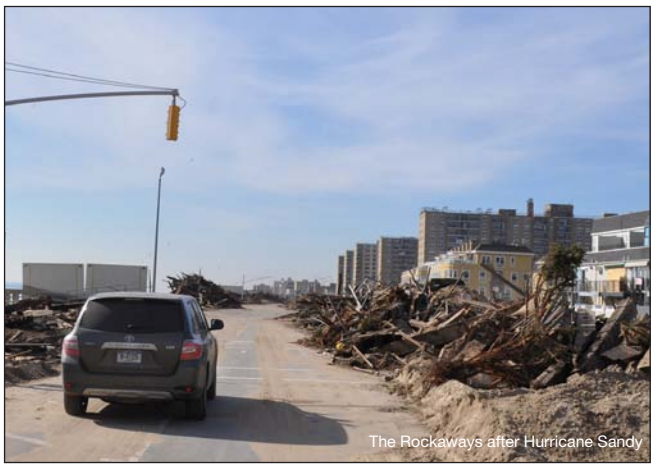

Staten Island Bluebelt

### $296 million to Build, Expand, Support, and Maintain the Staten Island Bluebelt System

As DEP modernizes and expands its traditional infrastructure, DEP is also developing innovative Best Management Practices (BMPs), such as Bluebelts that will naturally convey, store, and filter stormwater. Bluebelts are streams, ponds, and other wetland areas that also provide flood protection, community spaces and wildlife habitats. This important "green infrastructure" demonstrates how wetland preservation can be both economically prudent and environmentally responsible; on Staten Island, the current Bluebelt system drains 15 watersheds (clustered at the southern end of the Island), plus the Richmond Creek watershed. There are three additional Bluebelts in the mid-island area. In total, the Bluebelts provide effective stormwater management for 14,514 acres of Staten Island, or about one-third of Staten Island's total land area. These award-winning projects have reduced the need for more expensive storm-sewer networks.

### $95 million for Resiliency Post-Hurricane Sandy

Hurricane Sandy brought destruction to many parts of the region, and it had a major impact on the City's wastewater treatment system. DEP continued to deliver safe drinking water throughout the storm, and all of the wastewater treatment plants, except for the Rockaway WWTP, were meeting regulatory requirements within 72 hours after the storm, but repairs and proactive resiliency measures are needed. Since February 2011, DEP has been conducting a study of the effects of climate change and population growth on the city's wastewater and drainage systems, and post-Sandy, DEP is expanding the study to focus on the site specific nature of impacts; interdependencies between DEP infrastructure and the electrical grid; and risks posed to surrounding communities, receiving waterbodies, and sensitive areas from potential failures of critical services. In total, DEP expects to incur costs of approximately $95 million to repair infrastructure damaged by Sandy and to improve resiliency in the future.


The Rockaways after Hurricane Sandy

### DEP's Mission and Strategy 2011-2014

NYC Environmental Protection

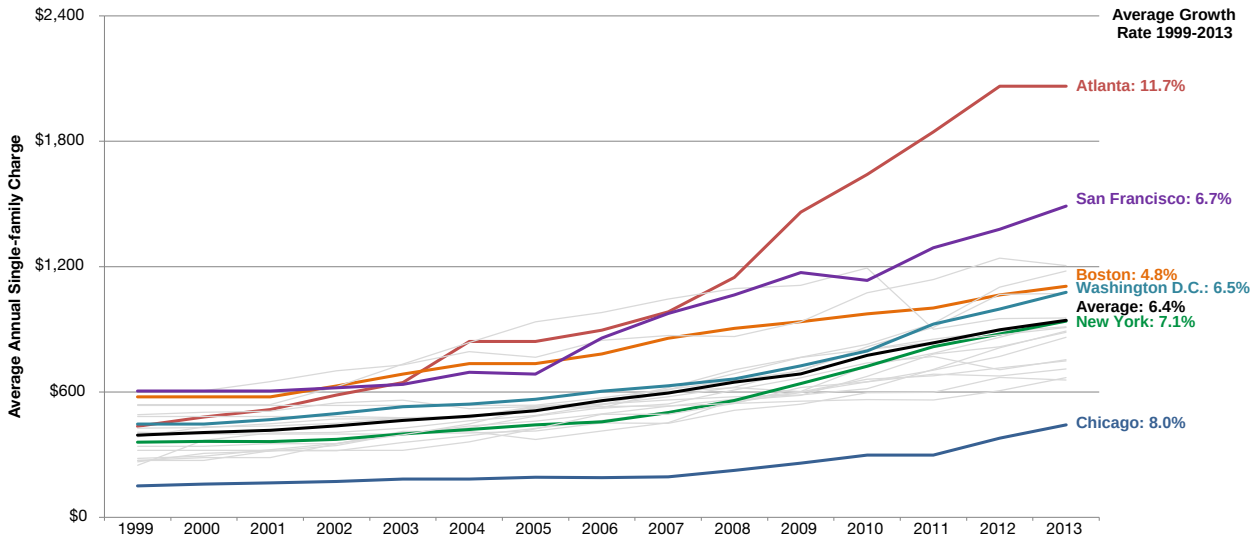
DEP's mission is to protect public health and the environment by supplying clean drinking water, collecting and treating wastewater, and reducing air, noise, and hazardous substances pollution.

In 2011, DEP adopted a strategic plan – *Strategy 2011-2014* – that set forth 100 strategies and initiatives to achieve its mission in four core areas:

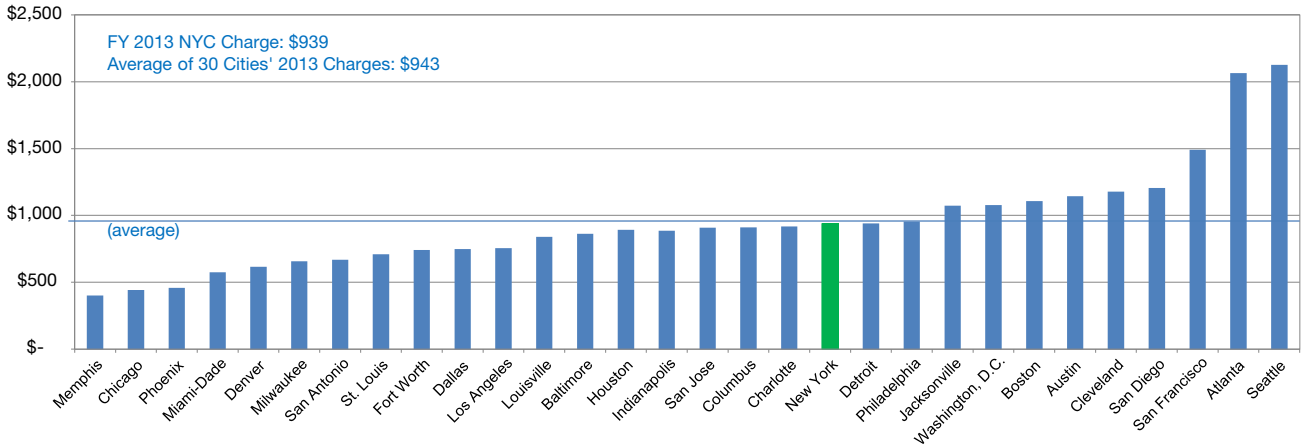
- Serving nine million customers,
- Operating the safest, highest-performing water utility at the lowest possible cost,
- Building capital projects on time and on budget, and
- Delivering clean waters, clean air and a sustainable quality of life for all New Yorkers.

Of the plan's 100 initiatives, 87 have been partially or fully achieved, and the remaining 13 are on track.

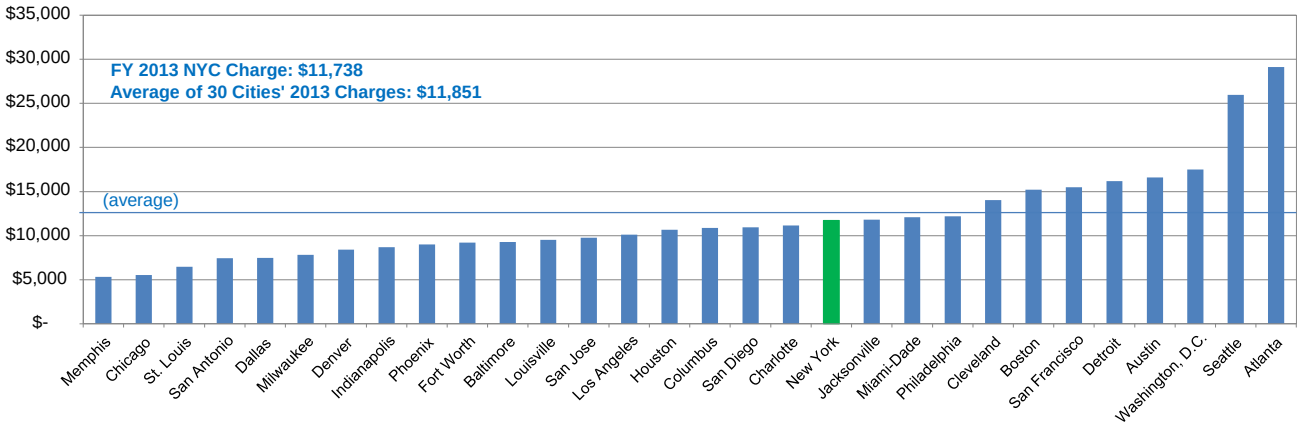
## Annual Residential Water/Wastewater Charges - Rate Increases of Various Cities over Time




## Annual Residential Water/Wastewater FY2013 Charges




## Annual Commercial Water/Wastewater FY2013 Charges



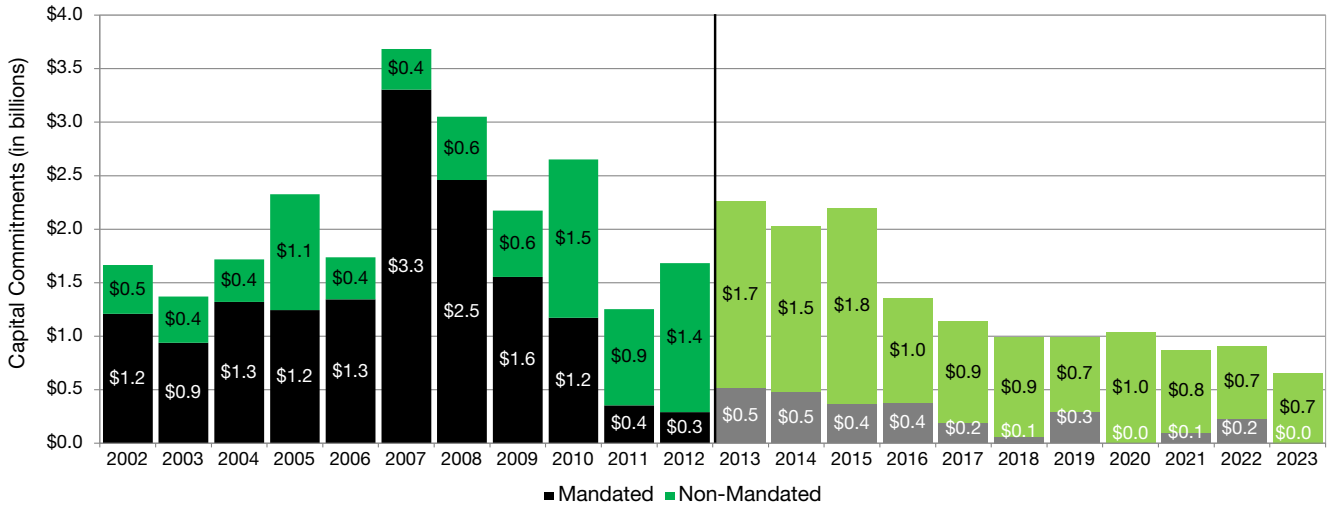

Annual estimates are based on rates in effect March 1, 2013. Consumption is estimated to be 80,000 gallons for residential and one million gallons for commercial customers.

## Anticipated System Revenues and Expenses (in millions)

| | FY2013 | FY2014 | Change |
|---|---|---|---|
| **Revenues** | | | |
| **Operating Revenues** | | | |
| Water/Sewer User Payments | $3,207.9 | $3,342.0 | $134.1 |
| Upstate Revenues | 60.5 | 61.8 | 1.2 |
| Miscellaneous Revenue | 51.3 | 28.9 | (22.4) |
| **Total Operating Revenues** | **$3,319.8** | **$3,432.7** | **$112.9** |
| **Non-operating Revenues** | | | |
| Water Finance Authority (Authority) Investment Income | $37.0 | $30.0 | ($7.0) |
| Federal Credit Payment on Outstanding Build America Bonds | 75.5 | 75.5 | - |
| **Total Non-operating Revenues** | **$112.5** | **$105.5** | **($7.0)** |
| **Total Revenues** | **$3,432.3** | **$3,538.2** | **$105.9** |
| **Expenses** | | | |
| **First Resolution Authority Debt Service** | | | |
| Outstanding Bonds | $341.9 | $344.4 | $2.5 |
| Anticipated Future Bonds | - | 10.7 | 10.7 |
| **Total First Resolution Debt Service** | **$341.9** | **$355.1** | **$13.2** |
| **Subordinate Debt Service** | | | |
| Authority Bonds | | | |
| Outstanding Second Resolution Authority Bonds | $727.6 | $844.6 | $117.0 |
| Anticipated Future Second Resolution Authority Bonds | - | 51.3 | 51.3 |
| Interest on Commercial Paper | 1.6 | 24.0 | 22.4 |
| Authority Bonds Issued to New York State Environmental Facilities Corporation (EFC) | | | |
| Outstanding Second Resolution EFC Bonds | 497.3 | 481.3 | (16.0) |
| Anticipated Future Second Resolution EFC Bonds | - | 31.8 | 31.8 |
| Less: EFC Subsidy | (101.2) | (104.4) | (3.1) |
| **Total Subordinate Debt Service** | **$1,125.2** | **$1,328.7** | **$203.5** |
| Less: Prior Year-end Cash Balance | (497.5) | (665.1) | (167.6) |
| **Subordinate Debt Service Payable from Current Revenues** | **$627.7** | **$663.6** | **$35.9** |
| **DEP Operations and Maintenance (O&M) Expenses** | | | |
| Water System | $581.7 | $617.4 | $35.7 |
| Wastewater System | 711.0 | 754.6 | 43.6 |
| Indirect Expense | 19.4 | 19.4 | - |
| Judgment and Claims | 8.0 | 8.0 | - |
| Less: Credit for Prior Year Excess O&M Payment | (62.4) | - | 62.4 |
| **Total DEP O&M Expenses** | **$1,257.7** | **$1,399.3** | **$141.6** |
| **Other Expenses** | | | |
| Authority Operations | $39.4 | $43.8 | $4.4 |
| Board Operations | 21.1 | 37.6 | 16.5 |
| Board Deposit to O&M Reserve Fund | 20.6 | 5.7 | (14.9) |
| Rental Payment | 208.7 | 241.2 | 32.5 |
| Authority Expense for the Defeasance of Debt | 250.0 | - | (250.0) |
| Cash-financed Capital Contribution | - | 225.0 | 225.0 |
| **Total Other Expenses** | **$539.9** | **$553.4** | **$13.5** |
| **Total Expenses** | **$2,767.1** | **$2,971.4** | **$204.2** |
| **Year-end Cash Balance** | **$665.1** | **$566.8** | **($98.3)** |

Note: This listing is for information only and does not follow the Flow of Funds priority established under the Financing Agreement.

## Capital Commitments - Legal Mandates Have Dictated Pace of Capital Investment




**Of the $23.3 billion in capital commitments between FY2002 and FY2012, $15.2 billion, or nearly 65%, has gone to legal mandates**

## Capital Improvement Program: FY2013-FY2023 (in millions)

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|
| Mandated | $519.5 | $484.6 | $370.4 | $380.3 | $187.2 | $59.1 |
| Non-Mandated | 1,745.1 | 1,544.2 | 1,823.0 | 972.9 | 949.8 | 924.8 |
| **Total** | **$2,264.6** | **$2,028.8** | **$2,193.4** | **$1,353.2** | **$1,137.0** | **$984.0** |

| | 2019 | 2020 | 2,021 | 2,022 | 2023 | 2013-2023 |
|---|---|---|---|---|---|---|
| Mandated | $300.6 | $0.0 | $101.5 | $233.0 | $0.0 | $2,636.3 |
| Non-Mandated | 691.0 | 1,033.3 | 773.4 | 676.2 | 656.4 | 11,790.1 |
| **Total** | **$991.7** | **$1,033.3** | **$874.9** | **$909.2** | **$656.4** | **$14,426.4** |

## Capital Improvement Program: FY2013-FY2023 Investment Allocation by Category (in millions)

| Project Type | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|
| Equipment | $124.5 | $126.8 | $40.9 | $99.9 | $39.2 | $76.6 |
| Sewers | 438.6 | 367.3 | 301.4 | 255.9 | 219.9 | 100.4 |
| Water Supply | 315.1 | 103.1 | 772.1 | 76.8 | 19.5 | 95.5 |
| Water Mains | 676.7 | 703.3 | 378.6 | 463.5 | 253.0 | 393.5 |
| Water Pollution Control | 709.7 | 728.4 | 700.4 | 457.1 | 605.5 | 318.0 |
| **Total** | **$2,264.6** | **$2,028.8** | **$2,193.4** | **$1,353.2** | **$1,137.0** | **$984.0** |

| Project Type | 2019 | 2020 | 2021 | 2022 | 2023 | 2013-2023 |
|---|---|---|---|---|---|---|
| Equipment | $33.6 | $23.1 | $46.8 | $52.5 | $47.1 | $711.1 |
| Sewers | 214.6 | 80.2 | 164.5 | 246.0 | 81.7 | 2,470.5 |
| Water Supply | 93.3 | 180.0 | 331.5 | 2.0 | 0.0 | 1,988.7 |
| Water Mains | 203.5 | 539.4 | 99.7 | 159.1 | 189.3 | 4,059.6 |
| Water Pollution Control | 446.6 | 210.6 | 232.4 | 449.6 | 338.2 | 5,196.5 |
| **Total** | **$991.7** | **$1,033.3** | **$874.9** | **$909.2** | **$656.4** | **$14,426.4** |

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