

# New York City FY2016 Water and Wastewater Rate Report

May 2015

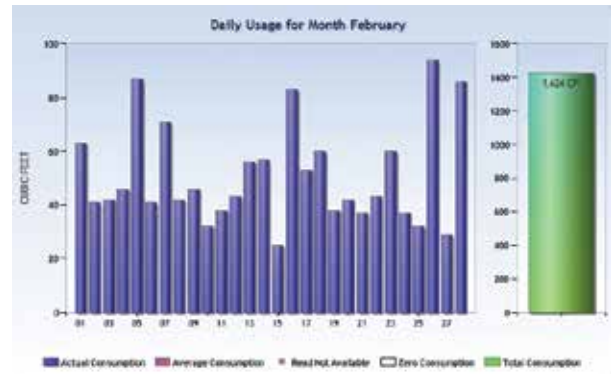
NEW YORK CITY  
WATER  
BOARD



# 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 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 receive alerts 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 respond quickly to potential leaks and fix them before they result in a high bill. Since 2011, 230,200 customers have enrolled in the Leak Notification Program and saved more than \$64 million in leak-related charges.

## GO GREEN AND RECEIVE \$10 CREDIT FOR MONTHLY EBILLS

As of July 1st, you can sign up to receive monthly water and sewer bills. Monthly bills will help you notice leaks sooner and make budgeting easier. Also, if you switch to monthly billing and register to receive the monthly bills as eBills, you'll get a \$10 credit on your DEP account after receiving your third consecutive monthly eBill! With eBilling, 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. eBilling not only saves time, it also helps improve our environment by reducing paper consumption.

# *Enroll online*

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The New York City Water Board (the “Board”) has prepared this information booklet to inform the public of its rate proposals for Fiscal Year 2016 (FY2016) 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 1.2 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 to more than nine 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 de Blasio Administration is committed to protecting the City’s water and wastewater infrastructure.

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.

# 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:

Alfonso L. Carney, Jr., *Chair*  
Tawan Davis  
Joseph G. Finnerty III  
Adam Freed  
Jonathan E. Goldin  
Arlene M. Shaw

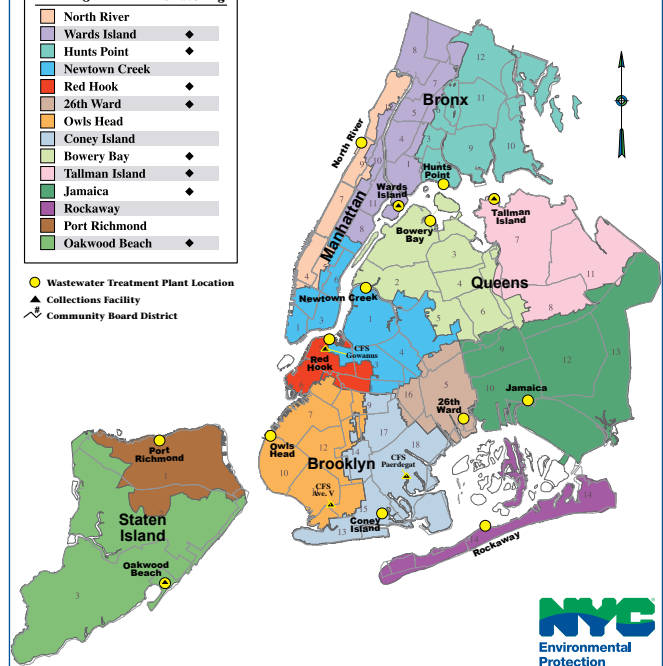
[nyc.gov/nycwaterboard](http://nyc.gov/nycwaterboard)



## NEW YORK CITY DRAINAGE AREAS AND WASTEWATER TREATMENT PLANTS

Wastewater Drainage Area	Plant Has Dewatering
North River	◆
Wards Island	◆
Hunts Point	◆
Newtown Creek	◆
Red Hook	◆
26th Ward	◆
Owls Head	◆
Coney Island	◆
Bowery Bay	◆
Tallman Island	◆
Jamaica	◆
Rockaway	◆
Port Richmond	◆
Oakwood Beach	◆

● Wastewater Treatment Plant Location  
▲ Collections Facility  
Community Board District



## Water Board Rate Adoption Process

- A proposal is made to the Board of rates that will satisfy the revenue requirements of the System and policies that will advance the Board's mission.
- 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's 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 8th, the Board adopts an Annual Budget based on the System's expenses that have been certified to it and adopts a rate. The Board must adopt a rate that will produce sufficient revenues to fund the System's expenses.

### Water Board Rate Adoption Schedule

<b>March 27</b>	Rate Proposal to Water Board
<b>April 27-May 1</b>	Public Hearings
<b>May 8</b>	Water Board Meeting to Adopt FY2016 Budget and in-City Rate
<b>June 1</b>	Public Hearing on Upstate Rate
<b>June 12</b>	Water Board Meeting to Adopt FY2016 Upstate Rate
<b>July 1</b>	New Rates Become Effective

### Schedule and Location of Public Hearings

<b>Borough</b>	<b>Location</b>	<b>Date/Time</b>
<b>Staten Island</b>	Joan and Alan Bernikow JCC 1466 Manor Road Staten Island, NY 10314	Monday, April 27, 2015 Doors open at 7:00 p.m. Public Hearing at 7:30 p.m.
<b>Brooklyn</b>	St. Francis College, Founders Hall 180 Remsen Street Brooklyn, NY 11201	Tuesday, April 28, 2015 Doors open at 6:30 p.m. Public Hearing at 7:00 p.m.
<b>Bronx</b>	Hostos Community College Savoy Building, 2nd Floor 120 East 149th Street Bronx, NY 10451	Wednesday, April 29, 2015 Doors open at 6:30 p.m. Public Hearing at 7:00 p.m.
<b>Queens</b>	LaGuardia Community College Conference Room E149 45-50 Van Dam Street Long Island City, NY 11101	Thursday, April 30, 2015 Doors open at 6:30 p.m. Public Hearing at 7:00 p.m.
<b>Manhattan</b>	NYC Department of City Planning Spector Hall, 22 Reade Street New York, NY 10007	Friday, May 1, 2015 Doors open at 1:00 p.m. Public Hearing at 1:30 p.m.



## FY2016 Rate Proposal

- **Increase in-City water rates by 3.24%.**
- **Minimum Charge:** Freeze the minimum charge for meter-billed customers at the fiscal year 2014 rate of \$0.49 per day for water service, plus the wastewater charge of 159% of water charges, which is a total of \$1.27 per day.
- **Monthly eBilling:** Offer all customers the option to be billed on a monthly basis. Customers who sign up for eBilling and monthly billing will receive a one-time \$10 credit after delivery of their third consecutive monthly eBill.
- **Service Line Protection Program (SLPP):** Continue to offer the SLPP at annual rates of \$53.88 per water service line contract (no change) and \$101.64 per sewer service line contract (no change).
- **Home Water Assistance Program (HWAP):** Provide a \$115.89 credit annually to low-income homeowners. In FY 2015, approximately 12,500 customers who qualified for the federal Home Energy Assistance Program (HEAP) received this credit. In FY 2016, the Board will expand this program to include an additional 46,500 low-income senior and disabled homeowners who receive New York City Department of Finance property tax exemptions, so that a total of 59,000 low-income customers will automatically receive the credit.
- **Lead and Copper Monitoring Program:** Offer a \$100 credit for successful completion of a lead and copper monitoring test.

For more information about these programs, visit [nyc.gov/dep](http://nyc.gov/dep).



## FY2016 Expenditures

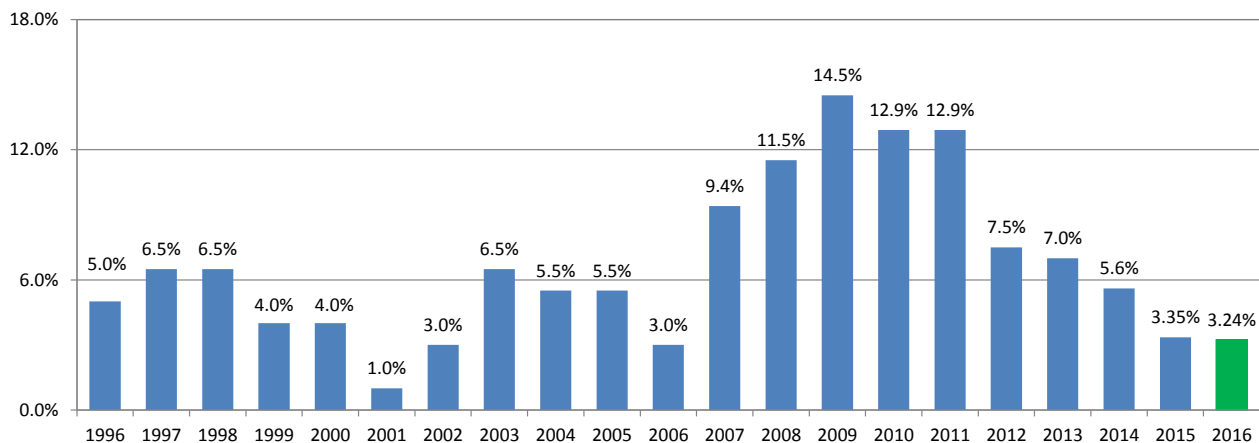
In the coming fiscal year, operations and maintenance expenses for this vast system will be 38% of the System's budget. These operational costs include all expenses to ensure and protect the City's water supply, treat and distribute drinking water to more than nine million customers each day, and treat over 1.2 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. This year, DEP will begin operating the Croton Filtration Plant, which has the capacity to filter 290 million gallons per day.

In 2015, 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 increased sludge thickening at the WWTPs, staffing optimization, improved procurement specifications and negotiations, and a prioritized replacement of large meters, DEP has already implemented changes that will result in a financial benefit of approximately \$98.2 million in FY2016. The implementation of additional OpX initiatives will continue in FY2016.

### Typical New York City Charges FY2016 (with Proposed 3.24% Rate Increase)

	FY2015	FY2016	Change
<b>Metered Customers, Rates per 100 Cubic Feet</b>			
Water	\$3.70	\$3.82	\$0.12
Wastewater	\$5.88	\$6.07	\$0.19
Combined	\$9.58	\$9.89	\$0.31
<b>Typical Metered Charges, Average Annual Charges</b>			
Single Family (80,000 gallons per year)	\$1,024.92	\$1,058.16	\$33.24
Multi-family Dwelling Unit on Metered Charges (52,000 gallons per year)	\$666.20	\$687.80	\$21.60
<b>Annual Multi-family Conservation Program (MCP) Charges per Unit</b>			
Residential	\$975.85	\$1,007.46	\$31.61
Low-use Commercial	\$803.39	\$829.42	\$26.03
Lodger/ Single-room Occupancy (SRO)	\$276.73	\$285.68	\$8.95

### Water and Sewer Rate History (Percent Change)



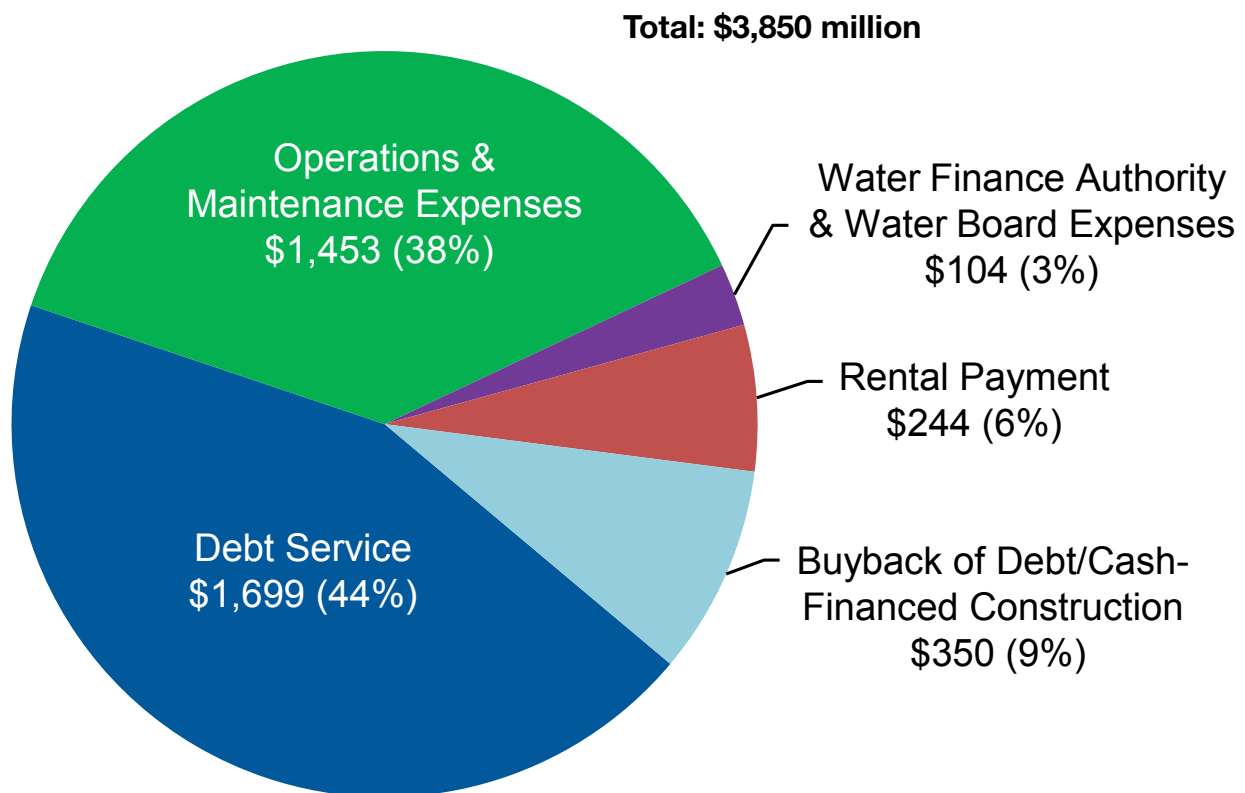


In FY2016, the largest component of the System's annual budget will be its debt service, accounting for 44% of the total revenue needed in FY2016. This debt service is a direct result of DEP's massive capital investment program, which has been largely driven by unfunded mandates required by state and federal regulators. From FY2005 to FY2014, DEP committed \$21.2 billion to its capital program, and 59% of these capital commitments were directed for mandated projects, such as the Croton Water Filtration Plant, Catskill/Delaware UV Disinfection Facility, and Newtown Creek WWTP. While these facilities all have significant benefits for the City's System, constructing them simultaneously based on contracts

that were required to be bid during the peak of the New York area's heavy-construction market was costly. Mostly, they have been financed by debt that will be repaid over the next thirty years, and from FY2005 through FY2015, such net debt issuance by the New York City Municipal Water Finance Authority is expected to total \$17.1 billion, for total outstanding debt of \$29.8 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 \$7 million per day on construction, design, and construction management.



## FY2016 Expenditures





Croton Water Filtration Plant



Catskill/Delaware  
UV Disinfection Facility

## DEP Infrastructure Investment Overview

From FY2005 to FY2014, DEP committed \$21.2 billion to its capital program, and DEP plans to spend more than \$2 billion on its capital program in FY2015. These investments have secured the City's System today and will benefit additional New Yorkers for generations to come. Recent investments include:

- **The Croton Filtration Plant** is entering regular service in FY2015 with the capacity to treat 290 million gallons of water per day, 30% of the City's daily demand. This plant will ensure the viability of the Croton reservoir system by filtering water provided by the oldest and smallest of the City's three watersheds, which has been surrounded by more development than the Catskill/Delaware watershed. The filtration plant has been constructed beneath Van Cortlandt Park in the Bronx, and because of its location, DEP has worked with the City's Department of Parks and Recreation to invest \$200 million in parks throughout the Bronx.
- **The upstate watershed protection program** is a significant factor in the U.S. Environmental Protection Agency's (U.S. EPA) approval of the historic 10-year Filtration Avoidance Determination (FAD) for DEP's Catskill/Delaware water supply systems.
- **The Catskill/Delaware UV Disinfection Facility** is helping to ensure the highest quality drinking water is delivered to New Yorkers. In FY2013, DEP began operation of the Catskill/Delaware UV Disinfection Facility, which is capable of treating 2.02 billion gallons of water per day from the Catskill and Delaware reservoir systems 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 only five large U.S. cities to have the majority of its water from lower-cost, unfiltered sources.

- **Activation of the Manhattan Section of City Water Tunnel No. 3** provides redundancy for Water Tunnel No. 1 in Manhattan.
- **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 WWTP** 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).

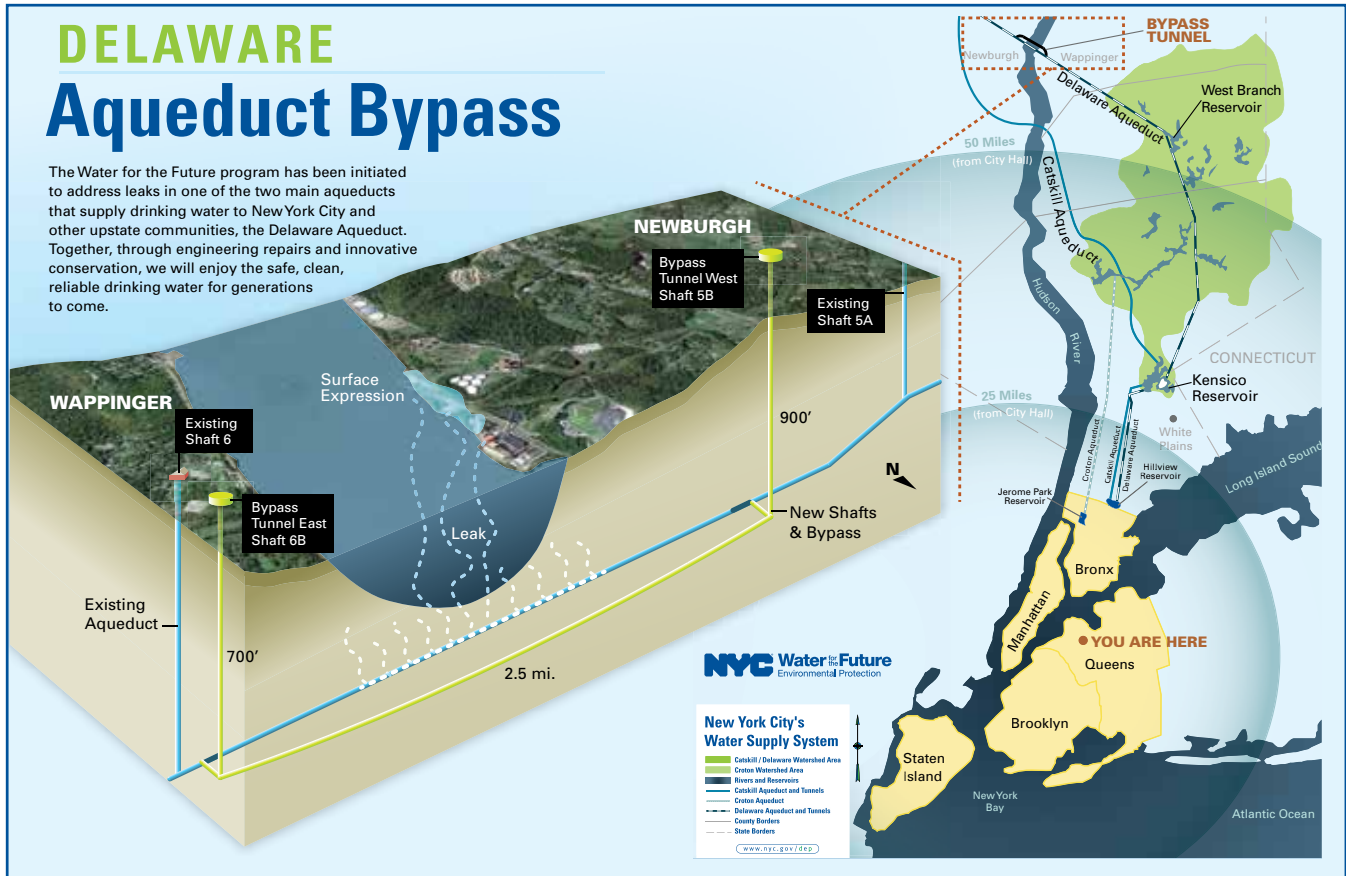
DEP expects that the coming years will continue to mark an active time for the City's water and wastewater infrastructure development, with additional multi-phase, long-term projects, such as the Green Infrastructure program, rehabilitation of the City's WWTPs, and Water for the Future, which encompasses the planning, design, and construction of permanent repairs to the Delaware Aqueduct. Ongoing projects, such as upstate land acquisition, watershed infrastructure maintenance, and energy and energy efficiency projects systemwide will enhance the System's sustainability.

The following paragraphs summarize some of the programmatic areas for capital investment as noted in the approved FY2016 Preliminary Ten-year Capital Improvement Plan.



# DELAWARE Aqueduct Bypass

The Water for the Future program has been initiated to address leaks in one of the two main aqueducts that supply drinking water to New York City and other upstate communities, the Delaware Aqueduct. Together, through engineering repairs and innovative conservation, we will enjoy the safe, clean, reliable drinking water for generations to come.



## Water Supply

### \$2.3 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. Since 1997, when the City entered into the Watershed Memorandum of Agreement to expand the watershed protection program, land holdings in the watershed have quadrupled; the City now protects about 176,000 acres in the upstate watershed, and it continues to devote funds to increase its holdings. DEP owns and operates six WWTPs that serve upstate communities, and it has funded a portion of the construction and operations and maintenance costs of additional WWTPs in the watersheds to provide the highest levels of treatment. Aside from building, upgrading, and maintaining wastewater infrastructure, DEP also works with local farmers to reduce pollution and constructs basic infrastructure such as dams, bridges, and roads. Due to the City's success at creating an ecological buffer around the watershed's source waters, the U.S. EPA awarded the City a 10-year FAD until 2017. This FAD, which is double the previous FAD's length, testifies to the effectiveness of the City's comprehensive watershed protection program.

### \$1.0 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. 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 million of preparatory construction work, DEP will construct a bypass for a section of the Delaware Aqueduct in Roseton. Construction of the shafts for the bypass tunnel is underway, a contract for construction of the bypass

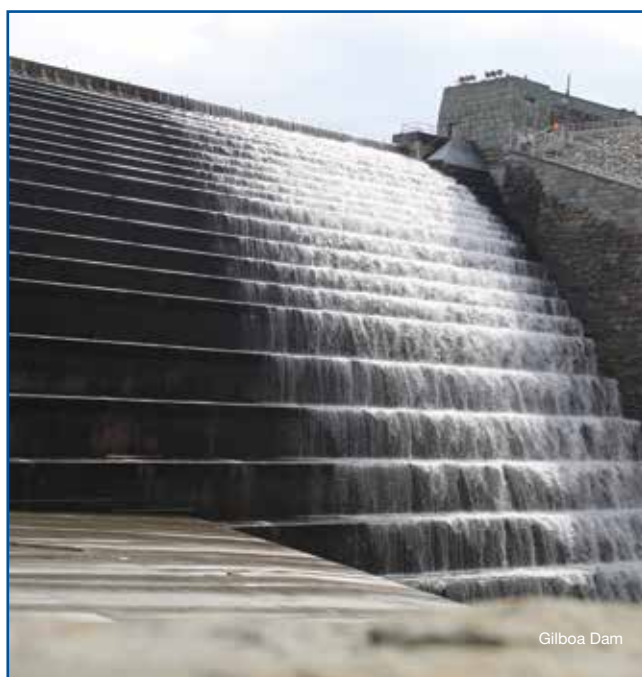
tunnel has been bid and will be registered by FY2016, and the project will culminate with the connection of the bypass tunnel in 2021. Since DEP must shut down the Aqueduct when we are ready to connect the bypass tunnel, DEP is also working on projects that will supplement the City's drinking water supply during the shutdown, such as connecting the Delaware and Catskill Aqueducts, upgrading the groundwater system in Jamaica, Queens and implementing conservation measures, including a toilet replacement program.

### **\$511 million for the Kensico-Eastview Tunnel Connection**

To increase reliability of the portion of the Catskill Aqueduct that delivers water from the Kensico Reservoir to the UV Facility at Eastview, DEP is constructing a second tunnel.

### **\$379 million for Upstate Dam Reconstruction**

DEP has undertaken a safety assessment of the System's dams throughout the watershed and is planning reconstruction work for several of them. The most significant project is the \$250 million reconstruction of the Gilboa Dam on the Schoharie Reservoir. With the Gilboa Dam, DEP completed reconstruction of the spillway and face of the dam, installed crest gates to manage the water flows, and is constructing a new low-level outlet and other improvements to meet safety standards.



Gilboa Dam



Green Infrastructure - Bioswales

## **Wastewater Management and Treatment**

### **\$3.6 billion to Upgrade, Modernize, and Maintain Wastewater Treatment Plants (WWTPs)**

Every day, the City's 14 WWTPs collectively treat about 1.2 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 the Newtown Creek WWTP) 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 evolving state and federal standards.

### **\$2.4 billion for Combined Sewer Overflow (CSO), Including Long-term Control Plans (LTCPs)**

The projects associated with the LTCPs will continue the City's successes in protecting local waterways towards a goal of opening 90% of the City's waterways for recreation by 2030. CSOs occur during especially wet weather when the City's 14 WWTPs are unable to treat all the wastewater and stormwater in the System. Therefore, in response to an administrative consent order with NYSDEC, DEP is required to submit LTCPs for CSOs in ten waterbodies, the East River, and open citywide waters. Programs such as CSO retention tanks, WWTP upgrades, and sustainable stormwater management practices will help keep floatable trash, debris, oils, grease, and bacteria from entering our waterways. 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.

#### **\$879 million for Green Infrastructure Projects**

To address CSOs, DEP is also installing Green Infrastructure in 29 priority areas. To date, DEP has committed more than \$200 million to Green Infrastructure projects and constructed more than 364 Green Infrastructure assets. DEP has also committed \$36 million to the Community Parks Initiative to implement Green Infrastructure stormwater controls in parks citywide, and DEP is partnering with the Trust for Public Land to construct green infrastructure on 40 public school playgrounds. To encourage Green Infrastructure investment on private property, DEP has provided \$13.6 million in grants, which have been matched with more than \$5.2 million of private funds.

#### **\$639 million for Energy and Energy Efficiency Projects**

DEP facilities consume nearly nine trillion British Thermal Units (BTUs) of energy each year, or the equivalent of powering 140,000 homes, and 90% of this energy is consumed by the wastewater treatment processes. To lessen the System's demand on the grid and its carbon footprint, DEP is undertaking significant energy and energy efficiency projects. In addition to upgrading the equipment at several of its WWTPs to improve energy efficiency, including reconstructing generators and installing new centrifuges, two of the largest projects are the development of a 10.5-megawatt cogeneration facility at the North River WWTP and the construction of a 14-megawatt hydroelectric facility at the Cannonsville Reservoir in Delaware County. The hydroelectric facility will generate enough electricity to power roughly 6,000 homes and avoid the emission of 25,620 metric tons of greenhouse gases each year by capturing the natural force of the billions of gallons of water that are released from Cannonsville Reservoir each year.

#### **\$475 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.

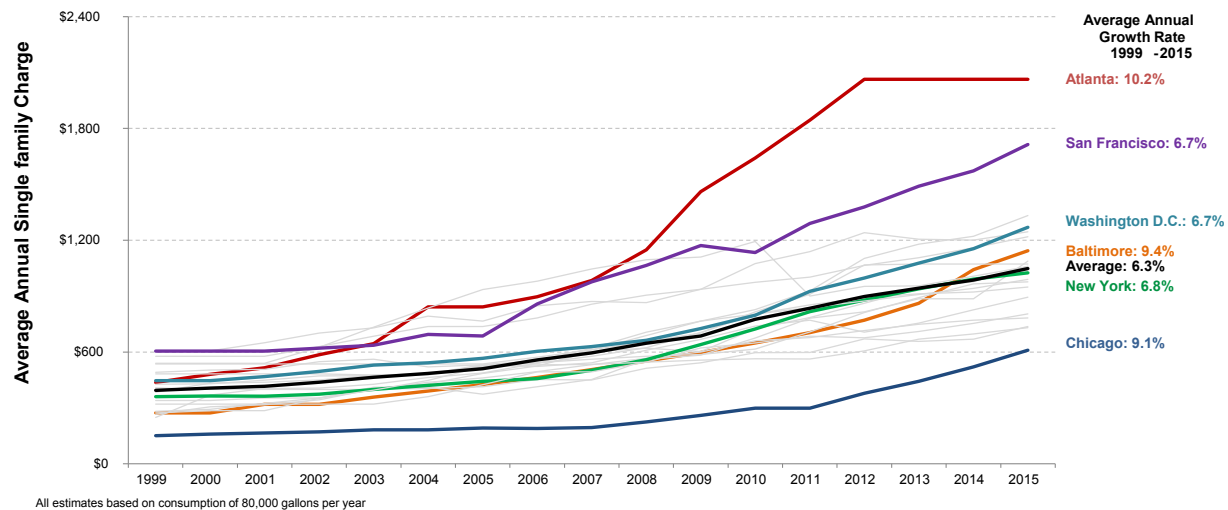
#### **\$315 million for Wastewater Resiliency Post-Hurricane Sandy**

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 WWTPs, except for the Rockaway WWTP, were meeting regulatory requirements within 72 hours after the storm, but repairs and proactive resiliency measures are needed. After several years of studying the effects of climate change and population growth on the city's wastewater and drainage systems, in October 2013, DEP published the NYC Wastewater Resiliency Plan. This report focused 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 \$315 million to repair infrastructure damaged by Sandy and to improve resiliency in the future.

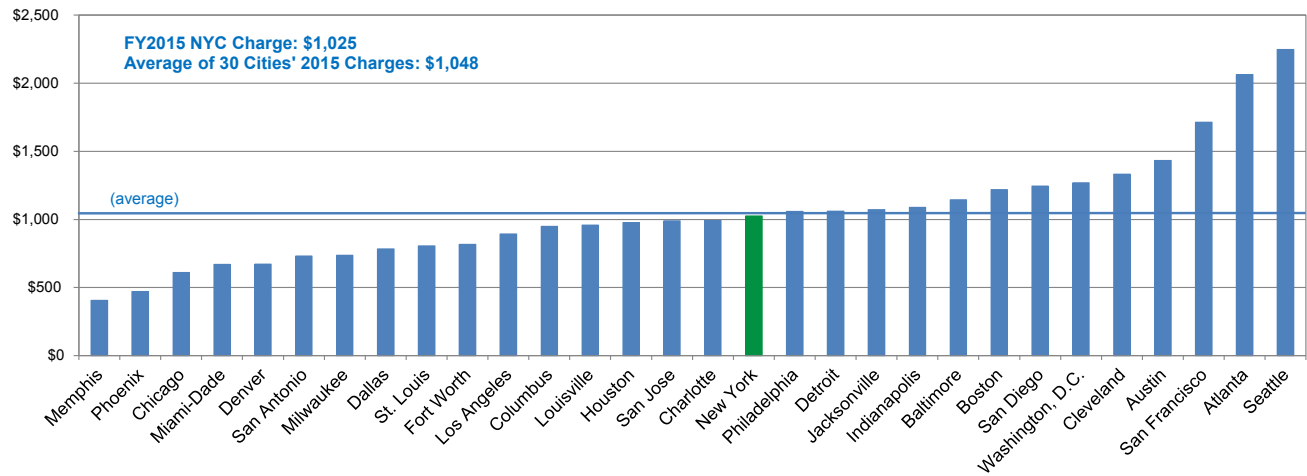




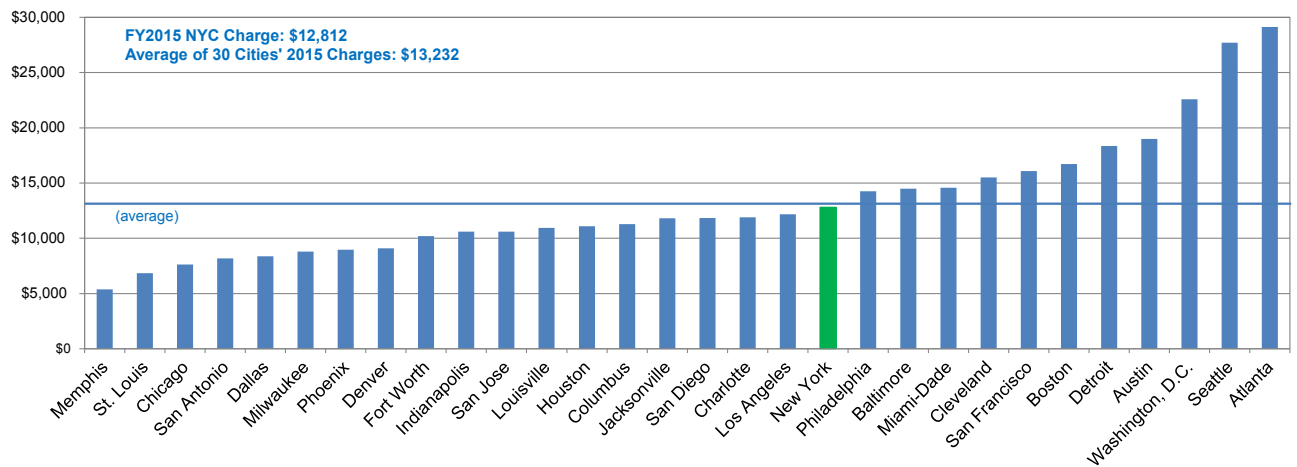
## Annual Residential Water/Wastewater Charges - Rate Increases of Various Cities over Time



## Annual Residential Water/Wastewater FY2015 Charges



## Annual Commercial Water/Wastewater FY2015 Charges



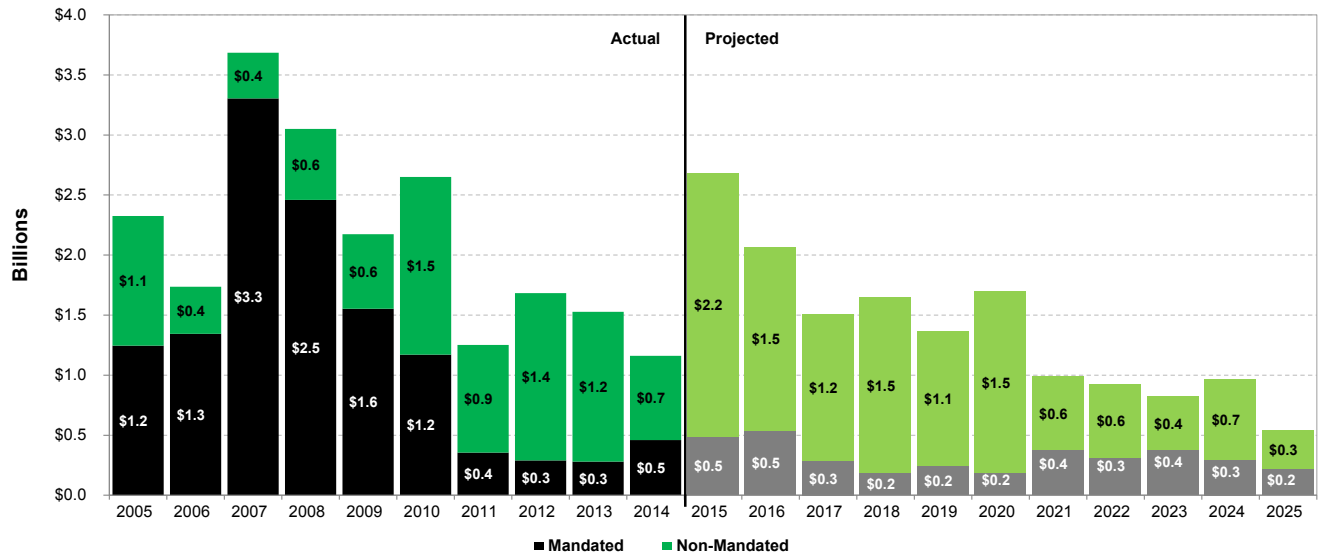
Annual estimates are based on rates in effect March 1, 2015. Consumption is estimated to be 80,000 gallons for residential and one million gallons for commercial customers.

## Anticipated System Revenues and Expenses (in millions)

	FY2015	FY2016	Change
<b>Revenues</b>			
<b>Operating Revenues</b>			
Water/Sewer User Payments	\$3,581.8	\$3,605.4	\$23.6
Upstate Revenues	73.5	73.0	(0.5)
Miscellaneous Revenue	45.5	56.2	10.7
<b>Total Operating Revenues</b>	<b>\$3,700.8</b>	<b>\$3,734.6</b>	<b>\$33.8</b>
<b>Non-operating Revenues</b>			
Water Finance Authority (Authority) Investment Income	\$29.0	\$26.0	(\$3.0)
Federal Credit Payment on Outstanding Build America Bonds	70.1	70.1	-
<b>Total Non-operating Revenues</b>	<b>\$99.1</b>	<b>\$96.1</b>	<b>(\$3.0)</b>
<b>Total Revenues</b>	<b>\$3,799.9</b>	<b>\$3,830.7</b>	<b>\$30.8</b>
<b>Expenses</b>			
<b>First Resolution Authority Debt Service</b>			
Outstanding Bonds	\$175.4	\$166.5	(\$8.9)
Anticipated Future Bonds	-	7.2	7.2
<b>Total First Resolution Debt Service</b>	<b>\$175.4</b>	<b>\$173.7</b>	<b>(\$1.8)</b>
<b>Subordinate Debt Service</b>			
<b>Authority Bonds</b>			
Outstanding Second Resolution Authority Bonds	\$863.6	\$1,082.1	\$218.5
Anticipated Future Second Resolution Authority Bonds	-	18.7	18.7
Interest on Commercial Paper	1.5	18.0	16.5
<b>Authority Bonds Issued to New York State Environmental Facilities Corporation (EFC)</b>			
Outstanding Second Resolution EFC Bonds	479.0	475.8	(3.2)
Anticipated Future Second Resolution EFC Bonds	-	26.6	26.6
Less: EFC Subsidy	(93.1)	(95.5)	(2.4)
<b>Total Subordinate Debt Service</b>	<b>\$1,251.0</b>	<b>\$1,525.6</b>	<b>\$274.6</b>
Less: Prior Year-end Cash Balance	(984.9)	(905.8)	79.1
<b>Subordinate Debt Service Payable from Current Revenues</b>	<b>\$266.1</b>	<b>\$619.8</b>	<b>\$353.7</b>
<b>Total Debt Service Payable from Current Revenues</b>	<b>\$441.6</b>	<b>\$793.5</b>	<b>\$352.0</b>
<b>DEP Operations and Maintenance (O&amp;M) Expenses</b>			
Water System	\$604.0	\$613.6	\$9.6
Wastewater System	704.8	804.1	99.3
Indirect Expense	16.4	19.4	3.0
Judgment and Claims	15.9	8.0	(7.9)
Plus: Debit for Prior Year O&M Underpayment	3.6	-	(3.6)
<b>Total DEP O&amp;M Expenses</b>	<b>\$1,344.7</b>	<b>\$1,445.1</b>	<b>\$100.4</b>
<b>Other Expenses</b>			
Authority Operations	\$48.2	\$52.6	\$4.4
Board Operations	35.1	51.8	16.7
Board Deposit to O&M Reserve Fund	17.9	7.6	(10.2)
Rental Payment	203.5	244.4	40.9
Buyback of Debt/Cash-Financed Construction	805.0	350.0	(455.0)
Less: Cash Released from Bond Escrow	(1.8)	(35.1)	(33.3)
<b>Total Other Expenses</b>	<b>\$1,107.9</b>	<b>\$671.4</b>	<b>(\$436.5)</b>
<b>Total Expenses</b>	<b>\$2,894.1</b>	<b>\$2,910.0</b>	<b>\$15.9</b>
<b>Year-end Cash Balance</b>	<b>\$905.8</b>	<b>\$920.6</b>	<b>\$14.8</b>

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 \$21.2 billion in capital commitments between FY2005 and FY2014, \$12.5 billion, or nearly 59%, has gone to legal mandates

### Capital Improvement Program: FY2015-FY2025 (in millions)

	2015	2016	2017	2018	2019	2020
Mandated	\$490.2	\$537.8	\$283.8	\$187.6	\$247.4	\$188.2
Non-Mandated	2,194.0	1,529.7	1,223.8	1,459.7	1,118.4	1,507.2
<b>Total</b>	<b>\$2,684.3</b>	<b>\$2,067.5</b>	<b>\$1,507.6</b>	<b>\$1,647.4</b>	<b>\$1,365.8</b>	<b>\$1,695.3</b>

	2021	2022	2023	2024	2025	2015-2025
Mandated	\$379.5	\$315.1	\$378.6	\$295.1	\$221.9	\$3,525.1
Non-Mandated	609.7	608.7	443.6	666.7	317.1	11,678.6
<b>Total</b>	<b>\$989.2</b>	<b>\$923.7</b>	<b>\$822.2</b>	<b>\$961.7</b>	<b>\$539.0</b>	<b>\$15,203.7</b>

### Capital Improvement Program: FY2015-FY2025 Investment Allocation by Category (in millions)

Project Type	2015	2016	2017	2018	2019	2020
Equipment	\$94.7	\$58.9	\$91.0	\$49.5	\$58.5	\$34.5
Sewers	487.7	583.0	444.1	333.4	242.7	243.2
Water Supply	665.7	16.4	7.0	150.5	241.3	22.0
Water Mains	739.2	822.9	385.4	380.7	450.0	698.9
Water Pollution Control	696.9	586.2	580.1	733.3	373.3	696.7
<b>Total</b>	<b>\$2,684.3</b>	<b>\$2,067.5</b>	<b>\$1,507.6</b>	<b>\$1,647.4</b>	<b>\$1,365.8</b>	<b>\$1,695.3</b>

Project Type	2021	2022	2023	2024	2025	2015-2025
Equipment	\$50.9	\$58.9	\$53.1	\$31.8	\$24.5	\$606.4
Sewers	180.9	241.7	104.4	126.9	93.5	3,081.5
Water Supply	20.0	50.0	20.0	193.0	20.0	1,406.0
Water Mains	150.2	153.0	129.9	268.4	111.3	4,289.9
Water Pollution Control	587.2	420.1	514.8	341.6	289.7	5,819.8
<b>Total</b>	<b>\$989.2</b>	<b>\$923.7</b>	<b>\$822.2</b>	<b>\$961.7</b>	<b>\$539.0</b>	<b>\$15,203.7</b>





## DEP'S MISSION

To protect public health and the environment by supplying clean drinking water, collecting and treating wastewater, and reducing air, noise, and hazardous substances pollution.

DEP seeks to achieve its mission by focusing on four core areas:

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

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