

# Public Information Regarding Water and Wastewater Rates

April 2012

NEW YORK CITY  
WATER  
BOARD



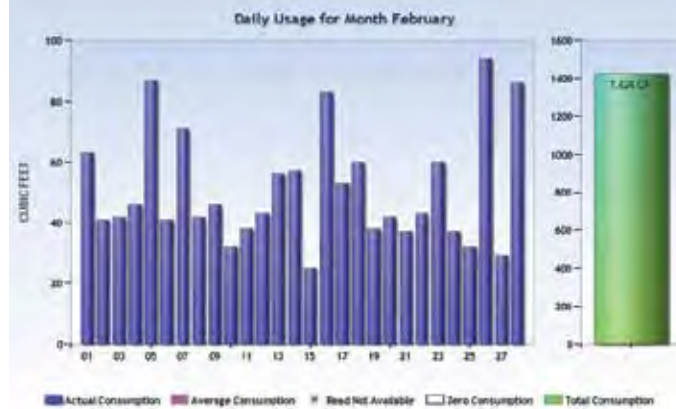
# Customer Service

Sign up for all services at: [www.nyc.gov/dep](http://www.nyc.gov/dep)

## TRACK YOUR WATER USE

### Use our new online system: My DEP Account

Did you know that you can track your water use online? Water customers with wireless water meters can see their water use online in real time. The online tracking system enables customers to manage their water use, reduce their water bills, and detect leaks more quickly. In addition, you can view your meter reads and see your payment and billing history online.



## LEAK NOTIFICATION

### Get alerts when your water use spikes unexpectedly

The Leak Notification Program is a new initiative that allows DEP to proactively alert customers to potential water leaks on their property. The program gives customers the opportunity to sign up online to receive email notifications when their water use increases significantly over a period of several days, enabling homeowners to quickly respond to potential leaks and fix them before they become a serious billing problem.

## 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.

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and follow us on [www.twitter.com/nycwater](http://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 2013 (“FY2013”) and provide information on the financial condition of the water and wastewater system.

New York City’s water and wastewater systems are among the largest in the world. The water supply system delivers more than one billion gallons of high quality 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 guaranteeing public health and the economic vitality of the City. By 2030, the City’s population is expected to grow by more than a 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 water and wastewater system, the Bloomberg Administration has made a commitment to the City’s water infrastructure in PlaNYC.

The mission of the seven-member Board is to set rates at the optimal level to achieve efficient financing of the City’s water and wastewater system infrastructure and sustainable provision of high-quality service at a fair price.

**Water Board Members:**

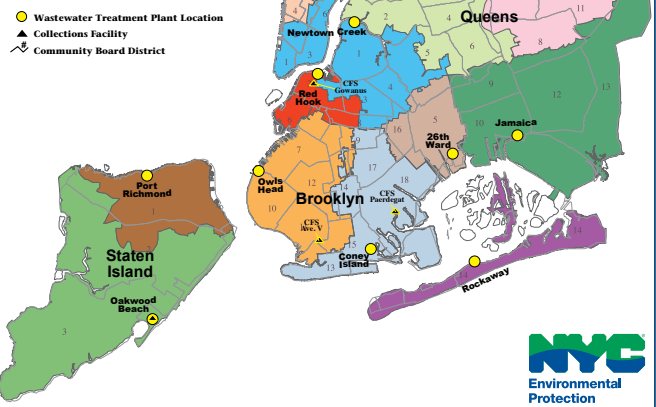
- Alan M. Moss, *Chair*
- Marcia Bystryn
- Donald A. Capoccia
- Alfonso L. Carney, Jr.
- Mehul J. Patel
- Arlene M. Payne
- Benjamin A. Tisdell

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



**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	◆





## Water Board Rate Adoption Process

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

## FY2013 Rate Proposal

- Increase in-City water rates by 7.0%
- Convert Tax Class 2 multi-family properties to Multi-family Conservation Program (MCP)
- A voluntary service line protection program will be offered at a rate not to exceed \$3.99 and \$7.99 per month for water and sewer service line coverage, respectively
- Service Call fee, for non-DEP infrastructure, changed to reflect cost of service; charge up to \$450
- Rental Payment from system to general fund to be capped at FY2011 amount and adjusted for inflation in 3-year pilot through FY2015

## Water Board Rate Adoption Schedule

<b>March 30</b>	Rate Proposal to Water Board
<b>April 23 - 27</b>	Public Hearings
<b>May 4</b>	Water Board Meeting to Adopt FY2013 In-City Rate
<b>June 11</b>	Public Hearing on Upstate Rate
<b>June 15</b>	Water Board Meeting to Adopt FY2013 Upstate Rate
<b>July 1</b>	New Rates Become Effective

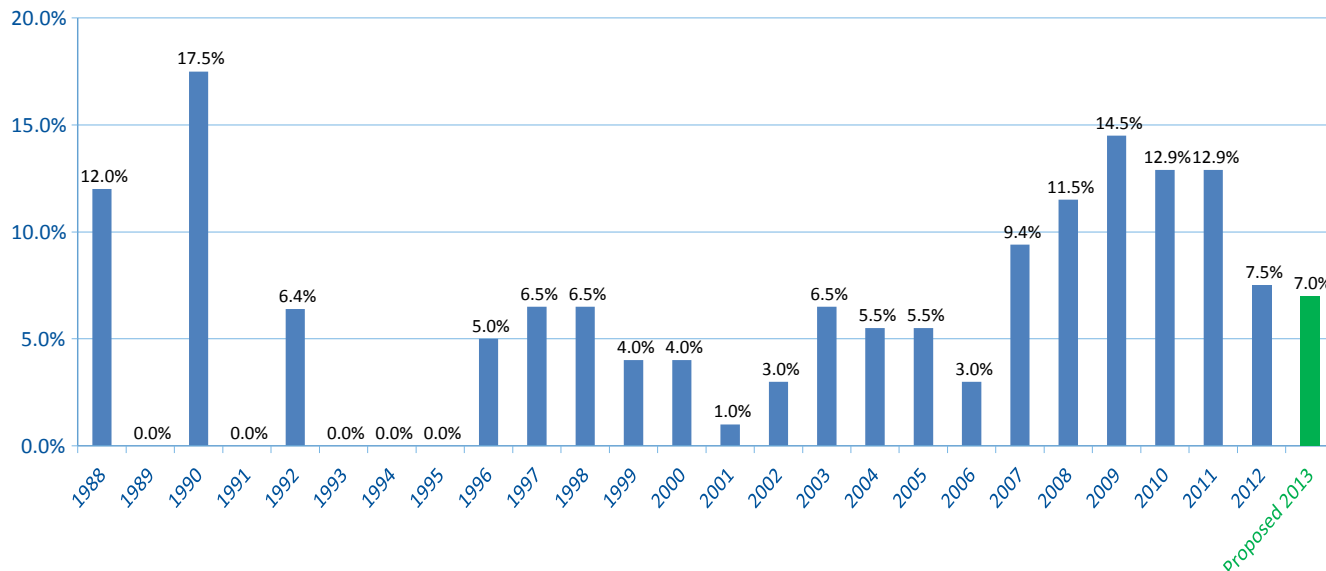
## Schedule and Location of Public Hearings

<b>STATEN ISLAND</b>	Monday, April 23 - 7:30 pm	New Dorp High School 465 New Dorp Lane
<b>BROOKLYN</b>	Tuesday, April 24 - 7:00 pm	Public School 222 Kathryn R. Snyder School 3301 Quentin Road
<b>BRONX</b>	Wednesday, April 25 - 7:00 pm	Riverdale YM-YWHA 5625 Arlington Avenue
<b>QUEENS</b>	Thursday, April 26 - 7:00 pm	Christ the King High School 68-02 Metropolitan Avenue
<b>MANHATTAN</b>	Friday, April 27 - 1:30 pm	City Planning Department Spector Hall 22 Reade Street - 1st Floor

## Typical New York City Charges FY2013 (with Proposed 7.0% Rate Increase)

	FY2012 Average	FY2013 Average	Change
<b>Metered Customers, Rates per 100 Cubic Feet</b>			
Water	\$3.17	\$3.39	\$0.22
Wastewater	\$5.04	\$5.39	\$0.35
Combined	\$8.21	\$8.78	\$0.57
<b>Typical Metered Charges, Average Annual Charges</b>			
Single Family (80,000 gallons per year)	\$877	\$939	\$62
Multi-family Dwelling Unit on Metered Charges (52,000 gallons per year)	\$571	\$610	\$39
<b>Annual Multi-family Conservation Program (MCP) Charges per Unit</b>			
Residential		\$894.15	
Low-use Commercial		\$736.13	
Lodger/ Single-room Occupancy (SRO)		\$253.56	
<b>Average Annual Fixed-rate Charges per Unit</b>			
Prior MCP Participants	\$1,020.49	\$894.15	(\$126.34)
Tax Class 2 Residential Frontage Converted to MCP	\$835.67	\$894.15	\$58.48

## Water and Sewer Rate History (Percent Change)

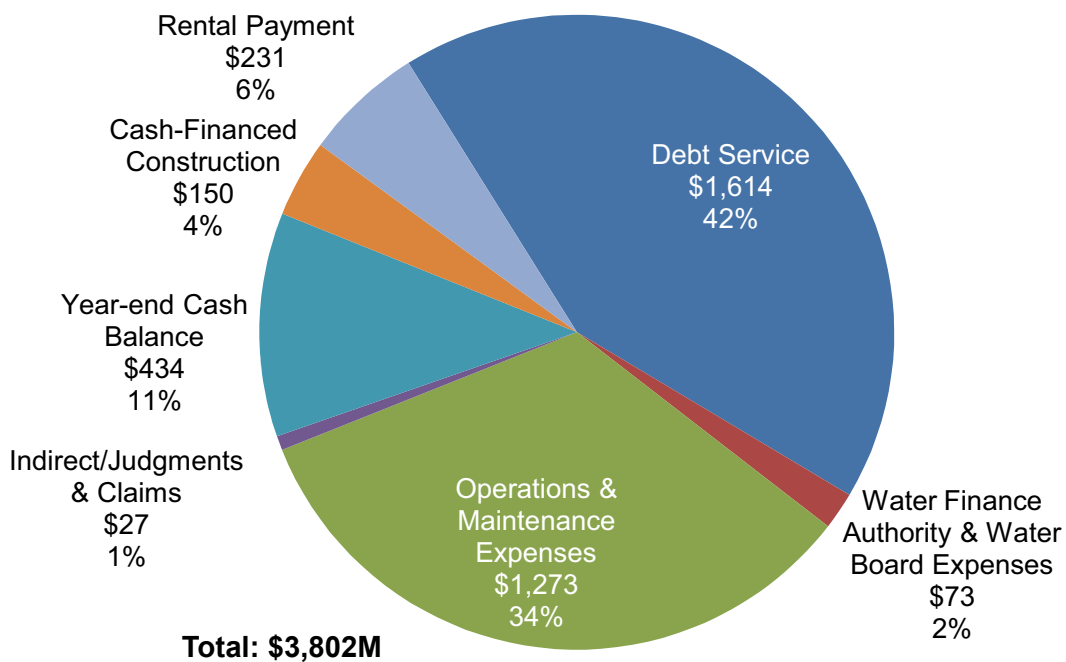


## FY2013 Expenditures

In the coming fiscal year, operations and maintenance expenses for this vast system will be 34% of the system's budget. The largest driver of the system's annual budget will be its debt service, accounting for 42% of the total revenue needed in FY2013. 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 Croton Water Filtration Plant, Catskill and Delaware Ultraviolet (UV) Disinfection Facility, and Newtown Creek Wastewater Treatment Plant — have been financed by debt that will be repaid over the next thirty years. While they will all have significant benefits for the City's water and wastewater system, constructing them simultaneously has been costly.

For fiscal years 2002 through 2011, 69% of DEP's capital commitments were directed for mandated projects, and from July 2002 through June 2012, net debt issuance by the New York City Municipal Water Finance Authority is expected to total \$19.2 billion, for total outstanding debt of \$27.4 billion. The resulting debt service has become the single largest driver of water and wastewater rate increases. 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 nearly \$9 million per day on construction, design and construction management.

### FY2013 Expenditures



## DEP Capital Program Overview

From FY2002 to FY2011, DEP committed \$21.6 billion to its capital program, and DEP plans to spend over \$2 billion on its capital program in FY2012. These investments have secured the City's current water and wastewater systems 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. EPA's approval of a historic 10-year Filtration Avoidance Determination, or FAD, for DEP's Catskill and Delaware water supply systems.
- Effective handling of stormwater and wastewater have made the City's harbor waters the cleanest they have been in over 100 years, based on sampling data.
- The multi-billion dollar upgrade at the Newtown Creek Wastewater Treatment plant has 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 (DEC).

As encouraging as these developments are, DEP expects that the coming years will mark an active time for the City's water and wastewater systems. Soon, multi-phase, long-term projects, such as City Water Tunnel No. 3, the Croton Water Filtration Plant, the Catskill/Delaware Ultraviolet Disinfection Facility, and the upgrades to the Newtown Creek WWTP, 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 and repair of the Delaware Aqueduct, will continue to expand and enhance the City's water and wastewater systems, enabling the City to meet current demand and preparing it for an additional one million people by 2030.



### PROTECTING THE WATER SUPPLY FROM NATURAL GAS DRILLING (HYDROFRACKING)

DEP is committed to protecting New York City's water supply from natural gas drilling. In 2011, the New York State Department of Environmental Conservation proposed banning high volume hydrofracking in the watershed — a significant and positive step that addressed many of the concerns previously raised by DEP. However, there is still concern about the impact of microseismicity, which are small earthquakes induced during the fracking process when fluids are injected during drilling and the fluids lubricate existing faults. A buffer zone around our underground tunnels is recommended to avoid damage that would have significant consequences on DEP's ability to meet in-City and upstate water demand and would be expensive and time consuming to repair. The City's proposal for a no-drill area includes a two-mile buffer zone from certain tunnels and a seven-mile buffer zone from major aqueducts. We will continue to discuss our concerns with DEC and work to ensure that the best decisions will be made to protect our water supply and its infrastructure. Learn more about the city's position on hydrofracking at [www.nyc.gov/dep](http://www.nyc.gov/dep).





*The following paragraphs summarize some of the programmatic areas for capital investment as noted in the approved FY2013 Preliminary Capital Improvement Plan.*

### **\$3.2 billion to Upgrade, Modernize, and Maintain Wastewater Treatment Plants (WWTPs) (not including CSOs)**

The water and wastewater systems together create a ‘closed loop’; every day, about 1 billion gallons of water is delivered to the City, and 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 DEC 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.

### **\$2.1 billion to Ensure the Dependability of the City’s Water Supply System and to Explore Alternative Sources**

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, New Yorkers have relied on this system 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 and demand reduction 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 design and timeline to repair leaks in the Delaware Aqueduct, one of the City’s primary drinking water supply tunnels. Based on a 10-year investigation and more than \$200 million 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, obtaining alternative sources of water from adjacent municipalities and implementing conservation measures. A groundbreaking on the bypass is expected in 2013 and the entire project will be complete in 2021.



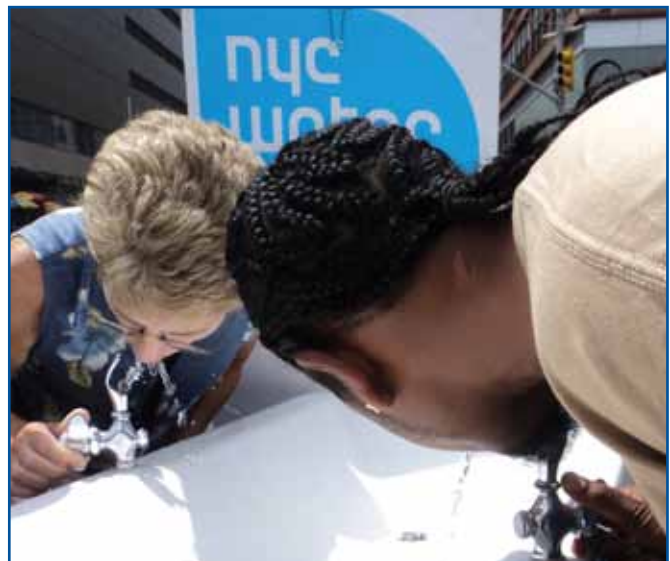


### **\$1.8 billion for Upstate Watershed Protection (not including the Catskill/Delaware UV Disinfection Facility)**

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 recently awarded a 10-year FAD from the U.S. Environmental Protection Agency (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 new 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 166,800 acres in the upstate watershed, and it is devoting funds to increase its holdings. In 2011, DEP was awarded a 15-year extension to this world-renowned Land Acquisition Program.

### **\$1.7 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



### **NYC Water-On-the-Go**

DEP has been showcasing the City’s award-winning, high-quality great-tasting, healthy tap water—NYC Water—through its Water-On-the-Go program since its launch in 2010. In 2011, over 200,000 New Yorkers were hydrated at Water-On-the-Go fountains at special events throughout the five boroughs. The portable fountains offer six faucets for direct drinking or filling water bottles and make NYC water easily accessible.

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 pavements, rain barrels, and green roofs), the City’s waterways will continue to improve.



**\$898 million to Complete City Water Tunnel No. 3, Stage 2**

When the Manhattan Section of City Water Tunnel No. 3 is completed in 2013, it will not only expand the City's water supply network, it will also allow DEP to inspect and repair City Water Tunnel No. 1 for the first time in its existence. 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 current capital plan provides funding for the completion of supply shafts in Brooklyn and Queens, as well as completing and activating shafts in Manhattan. All told, City Water Tunnel No. 3 represents a \$6 billion investment in the City's water supply infrastructure.

**\$429 million for the Continued Construction of the Ultraviolet (UV) Disinfection Facility for the Catskill and Delaware Water Supplies**

To support the 10-year FAD, the City is constructing the Catskill and Delaware UV Disinfection Facility. Once operational, this facility will



be able to treat 2.02 billion gallons of water a day, double the capacity of all other existing UV treatment facilities in North America combined. This UV facility, which is being constructed in Westchester County, will be operational in 2012 to serve as an additional barrier against microbiological agents, such as Cryptosporidium and Giardia. Because of this investment, the City will not have to build a \$10 billion-plus filtration plant for Catskill and Delaware water, allowing the City to remain one of five large cities to have the majority of its water from unfiltered sources.

**\$276 million for the Continued Construction and Completion of the Croton Water Filtration Plant (including Parks)**

When operational in 2013, 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. The Croton system, which is located in Westchester, Putnam, and Dutchess Counties, is more at risk from microbiological contamination than the Catskill and Delaware reservoir systems, mainly because of development in the area. 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. This filtration plant will ensure the viability of the critical Croton reservoir system and secure the City's water distribution network.





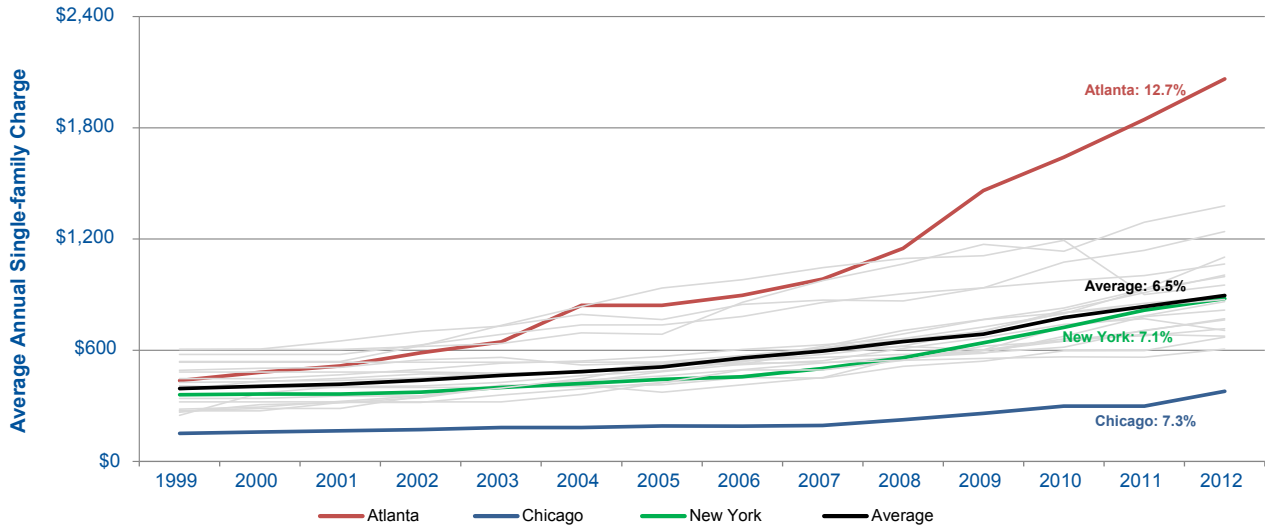
### **\$243 million to Build, Expand, Support, and Maintain the Staten Island Bluebelt System**

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 storm water. 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.

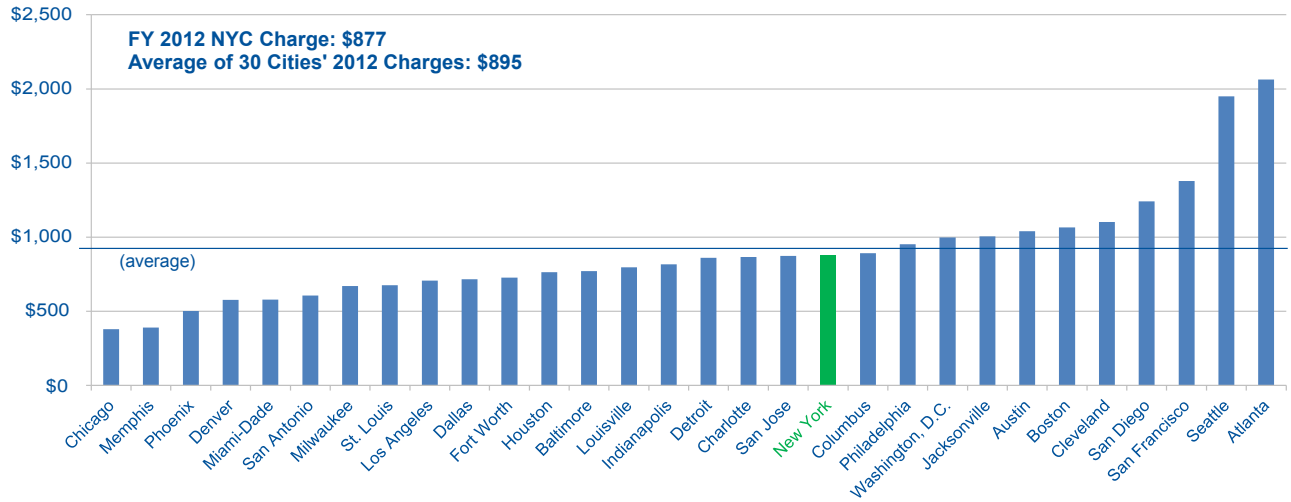


The City’s efforts to improve water quality are a critical part of PlaNYC, Mayor Bloomberg’s blueprint for a greener, greater city. Already the Harbor is cleaner than it has been in over 100 years, and millions of people enjoy the City’s waterfront and waterways every year, thanks in part to DEP’s investment of billions of dollars in sewer and wastewater treatment plant upgrades. The biggest remaining challenge for our waterways is how to further reduce combined sewer overflows (CSOs) that discharge a mixture of untreated sewage and stormwater runoff when it rains. The NYC Green Infrastructure Plan, which outlines a groundbreaking approach to capture water by greening our environment, was recently given a green light when DEP and the State Department of Environmental Conservation reached an agreement that allowed the plan to move forward. By 2030, \$2.4 billion of public and private money in green infrastructure will mean better harbor water quality and a more beautiful environment. Learn more about the plan at [www.nyc.gov/dep](http://www.nyc.gov/dep).

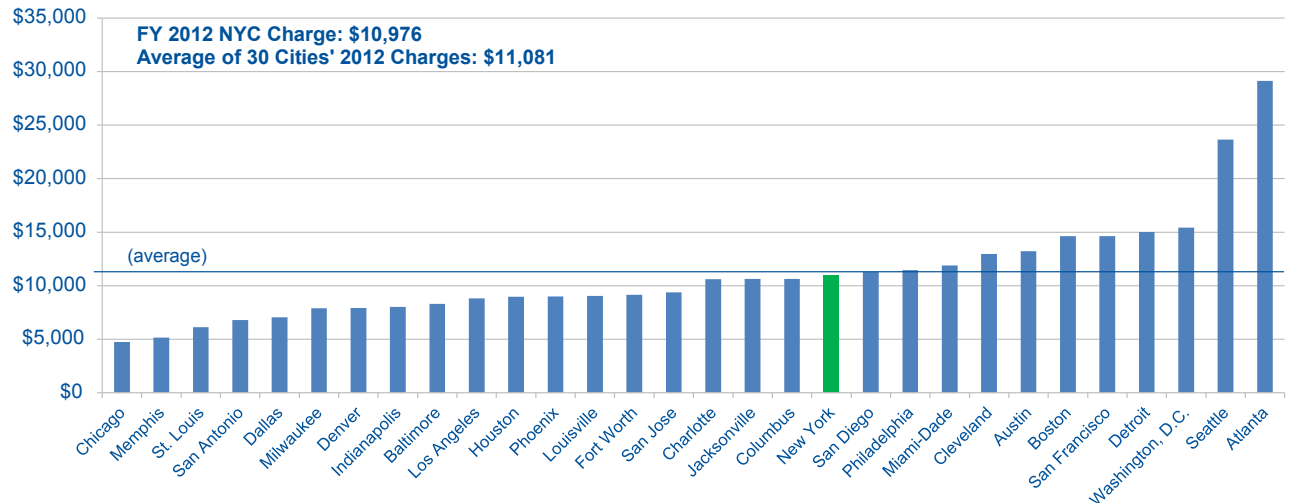
## Annual Water/Wastewater Charges Residential - Rate Increases of Various Cities over Time



## Annual Water/Wastewater FY2012 Charges (Residential)



## Annual Water/Wastewater FY2012 Charges (Commercial)



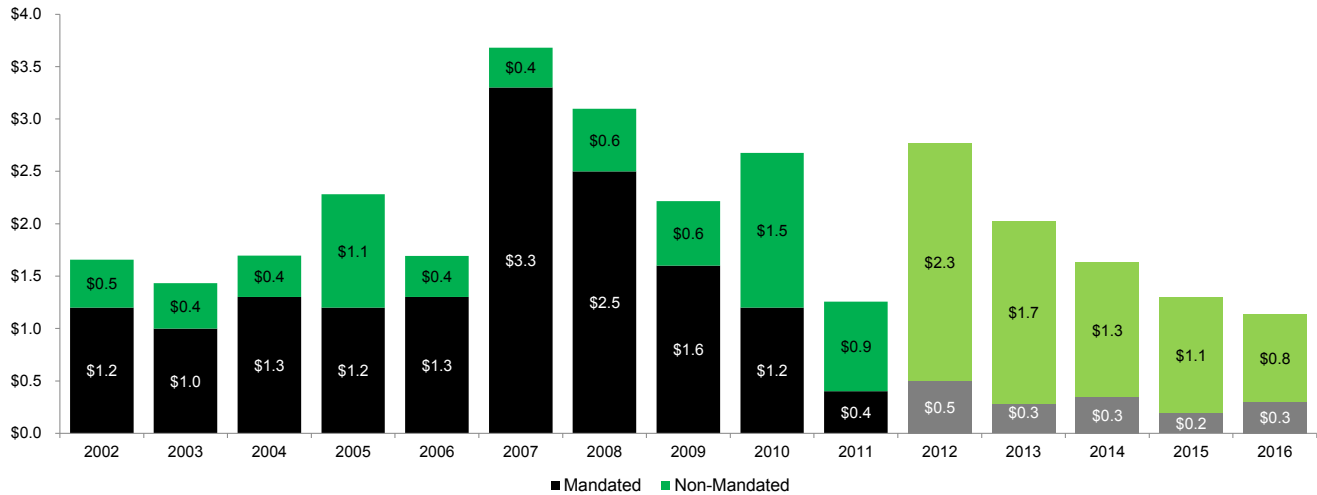
Annual estimates are based on rates in effect March 1, 2012. Consumption is estimated to be 80,000 gallons for residential and one million gallons for commercial customers.



## Anticipated Water and Wastewater System Expenditures (\$s in millions)

	FY2012	FY2013	Change
<b>Operating Revenues</b>			
Water/Sewer User Payments	\$3,067.8	\$3,141.8	\$74.0
Upstate Revenues	\$55.0	\$58.5	\$3.5
Miscellaneous Revenue	\$18.5	\$32.3	\$13.8
<b>Other Revenues</b>			
Federal Credit Pmt. On Outstanding Build America Bonds	\$49.0	\$42.0	(\$7.0)
Water Finance Authority Investment Income	\$75.5	\$75.5	\$0.0
<b>Current Revenues Available for Debt Service</b>	<b>\$3,265.9</b>	<b>\$3,350.2</b>	<b>\$84.3</b>
<b>WFA Debt Service</b>			
<b>First Resolution Debt Service:</b>			
Outstanding Bonds	\$447.2	\$381.8	(\$65.3)
Anticipated Future Bonds	\$0.0	\$12.0	\$12.0
<b>Total First Resolution Bonds</b>	<b>\$447.2</b>	<b>\$393.8</b>	<b>(\$53.3)</b>
<b>Subordinate Obligations:</b>			
Outstanding Second Resolution Authority Bonds	\$594.3	\$710.9	\$116.6
Anticipated Future Second Resolution Authority Bonds	\$4.0	\$47.0	\$43.0
Interest on Commercial Paper	\$4.0	\$24.0	\$20.0
Outstanding Second Resolution EFC Bonds	\$544.0	\$520.7	(\$23.3)
Anticipated Future Second Resolution EFC Bonds	\$0.0	\$44.0	\$44.0
Less: EFC Subsidy and Cap Interest	(\$117.8)	(\$126.3)	(\$8.5)
<b>Actual Debt Service on Subordinated Obligations</b>	<b>\$1,028.5</b>	<b>\$1,220.2</b>	<b>\$191.8</b>
Less: Prior Year-end Cash Balance	(\$376.9)	(\$451.8)	(\$74.9)
<b>Net Debt Service on Subordinated Obligations</b>	<b>\$651.6</b>	<b>\$768.4</b>	<b>\$116.9</b>
<b>Total Debt Service Payable from Current Revenues</b>	<b>\$1,098.7</b>	<b>\$1,162.3</b>	<b>\$63.5</b>
<b>Operating Expenses</b>			
Authority/Board Operations	\$46.5	\$72.7	\$26.2
Net Authority Expense for the Defeasance of Debt	\$235.0	\$0.0	(\$235.0)
Water System	\$536.1	\$577.2	\$41.1
Wastewater System	\$680.7	\$688.0	\$7.2
Indirect Expense	\$19.4	\$19.4	\$0.0
Judgment and Claims	\$8.0	\$8.0	\$0.0
<b>Total Operating and Maintenance Expenses</b>	<b>\$1,525.7</b>	<b>\$1,365.3</b>	<b>(\$160.4)</b>
Less: Credit for Prior Year Excess O&M Payment	(\$36.3)	\$0.0	\$36.3
Deposits to O&M Reserve Fund	\$15.9	\$8.0	(\$8.0)
Rental Payment	\$210.0	\$230.8	\$20.8
Current Cash-financed Capital Contribution	\$0.0	\$150.0	\$150.0
<b>Total Operating Expenses</b>	<b>\$1,715.3</b>	<b>\$1,754.0</b>	<b>\$38.7</b>
<b>Total Expenses</b>	<b>\$2,814.0</b>	<b>\$2,916.2</b>	<b>\$102.2</b>
<b>Year-end Cash Balance</b>	<b>\$451.8</b>	<b>\$433.9</b>	<b>(\$17.9)</b>

## Legal Mandates Have Dictated Pace of Capital Investment



Of the \$21.6 billion in capital commitments between FY2002 and FY2011, \$15 billion, or nearly 69%, has gone to legal mandates

### Capital Improvement Program: FY2012-2021

Project Type	2012	2013	2014	2015	2016	2012-2016
Equipment	100,874	114,996	201,300	79,030	134,275	630,475
Sewers	546,493	253,814	225,509	197,006	113,774	1,336,596
Water Supply	141,099	465,694	204,169	455,859	8,111	1,274,932
Water Mains	1,081,434	744,666	303,336	172,404	433,467	2,735,307
Water Pollution Control	901,763	447,176	697,308	447,104	439,808	2,933,159
<b>Total</b>	<b>2,771,663</b>	<b>2,026,346</b>	<b>1,631,622</b>	<b>1,351,403</b>	<b>1,129,435</b>	<b>8,910,469</b>

Project Type	2017	2018	2019	2020	2021	2012-2021
Equipment	48,810	48,798	26,338	39,500	28,162	822,083
Sewers	83,666	70,814	188,520	71,518	172,061	1,923,175
Water Supply	122,467	216,475	1,482	1,000	301,000	1,917,356
Water Mains	163,368	184,313	105,922	418,266	103,041	3,710,217
Water Pollution Control	481,819	386,670	513,687	375,492	211,711	4,902,538
<b>Total</b>	<b>900,130</b>	<b>907,070</b>	<b>835,949</b>	<b>905,776</b>	<b>815,975</b>	<b>13,275,369</b>

### Capital Improvement Program: FY2012-2021 (Investment Allocation by Category)

	2012	2013	2014	2015	2016	2012-2016
Mandated	526,268	285,246	346,105	228,621	346,532	1,732,772
Non-Mandated	2,245,395	1,741,100	1,285,517	1,122,782	782,903	7,177,697
<b>Total</b>	<b>2,771,663</b>	<b>2,026,346</b>	<b>1,631,622</b>	<b>1,351,403</b>	<b>1,129,435</b>	<b>8,910,469</b>

	2017	2018	2019	2020	2021	2012-2021
Mandated	225,872	187,153	322,115	640,492	-	3,108,404
Non-Mandated	674,258	719,917	513,834	265,284	815,975	10,166,965
<b>Total</b>	<b>900,130</b>	<b>907,070</b>	<b>835,949</b>	<b>905,776</b>	<b>815,975</b>	<b>13,275,369</b>



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