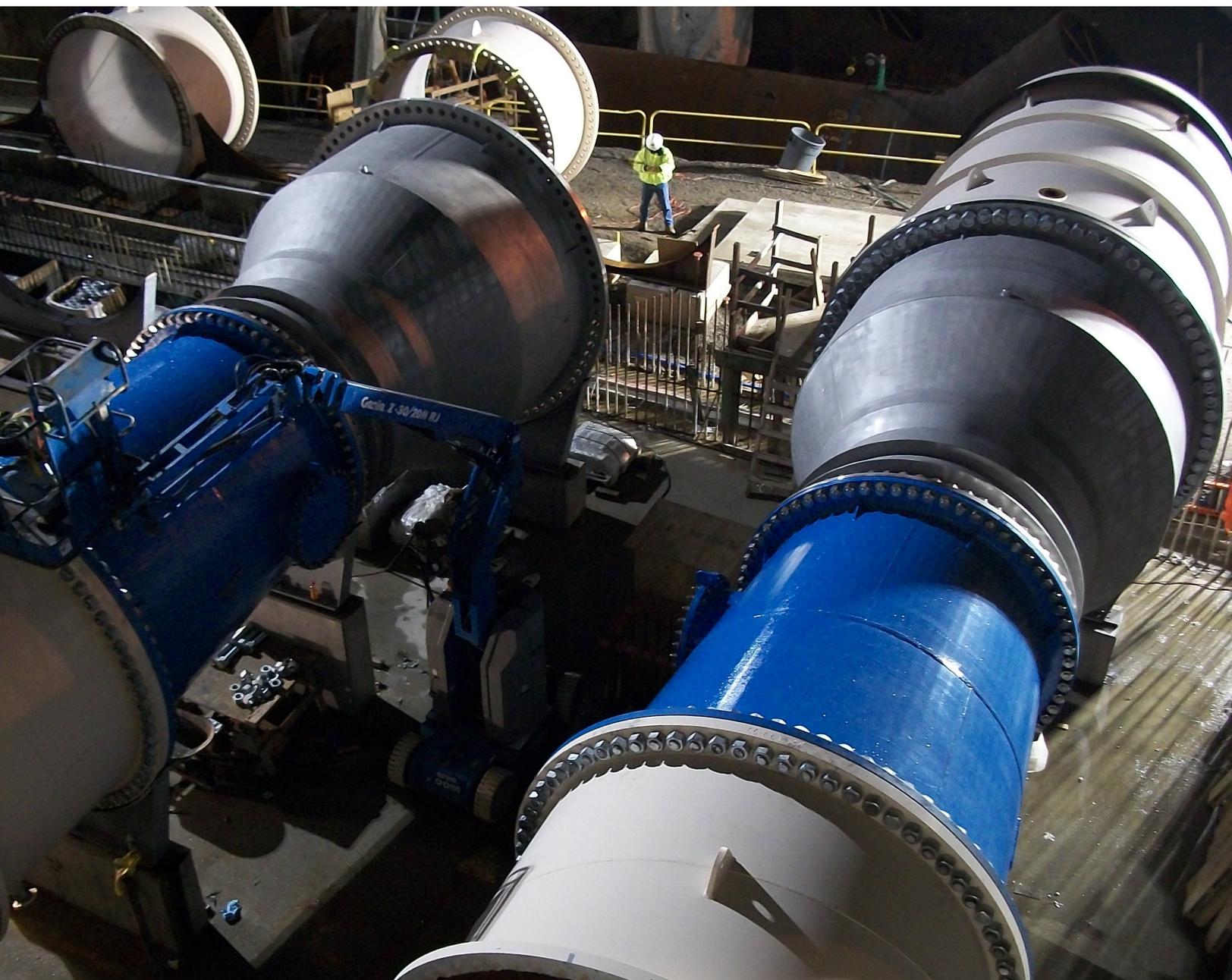


# Public Information Regarding Water and Wastewater Rates

April 2011

NEW YORK CITY  
**WATER  
BOARD**



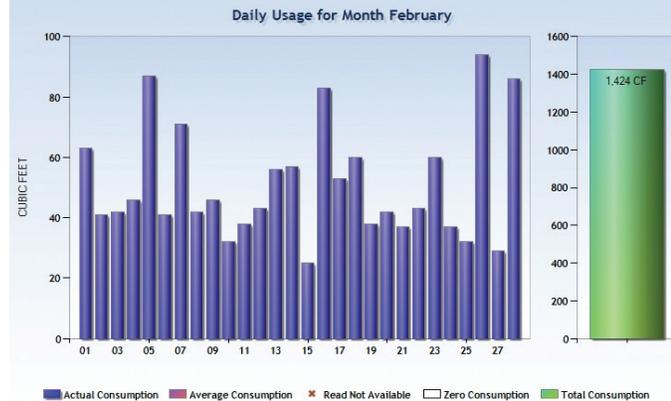
# Customer Service

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.

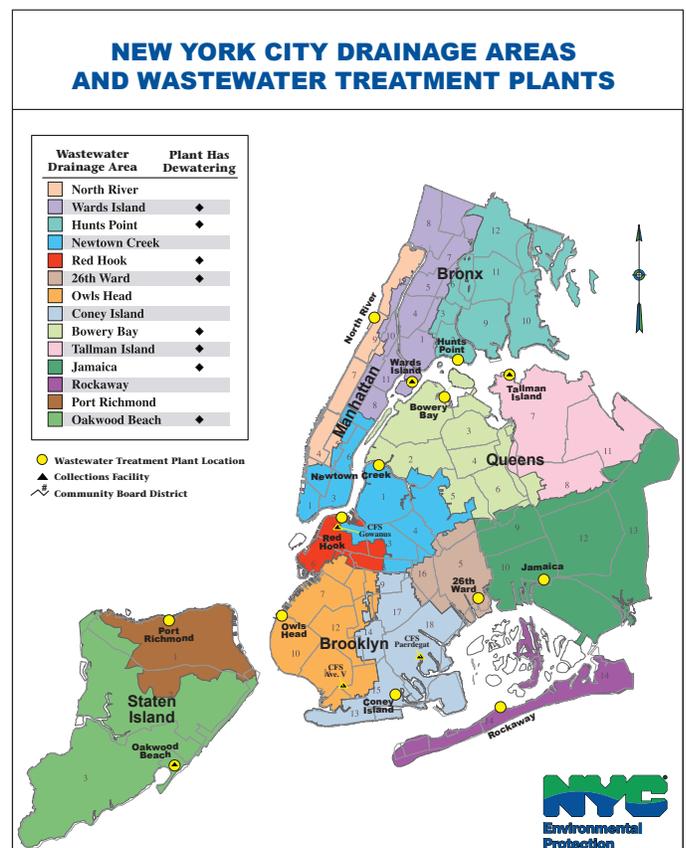
Follow us on [www.facebook.com/nycwater](http://www.facebook.com/nycwater)

The New York City Water Board (“the Board”) has prepared this information booklet to inform the public on its rate proposals for Fiscal Year 2012 (“FY2012”) and provide information on the financial condition of the water and wastewater system, as well as its budget for the upcoming year.

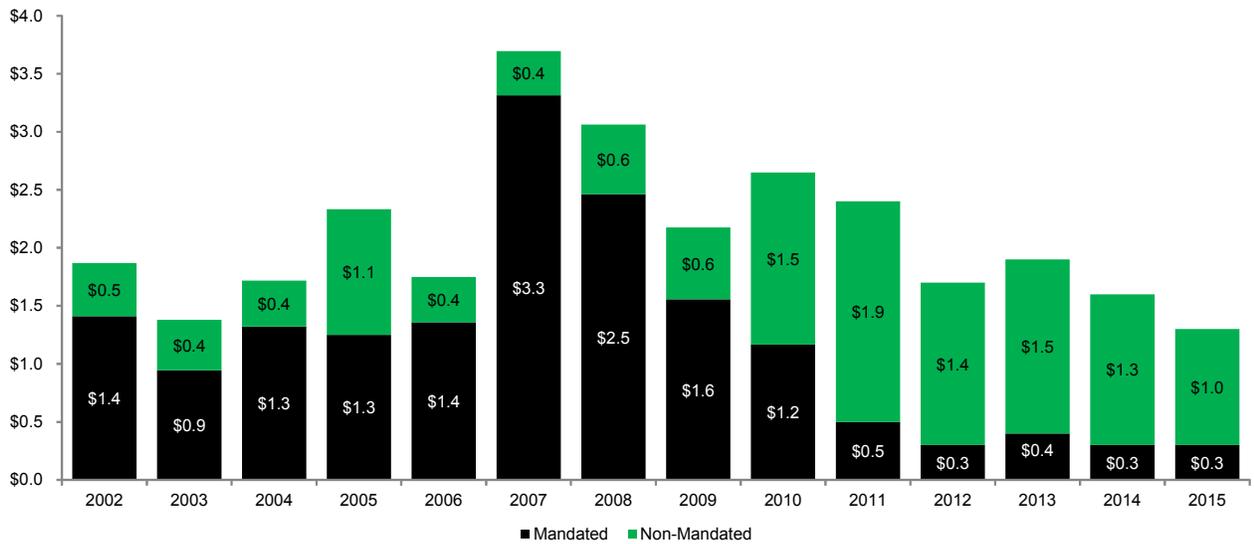
New York City’s water and wastewater system are among the largest in the world. The water supply system delivers more than one billion gallons of high quality water every day to more than eight million people in New York City and nearly one million residents in four counties north of the City. The City’s fourteen Wastewater Treatment Plants (WWTPs) treat roughly 1.3 billion gallons of wastewater daily. New York City’s water and sewer infrastructure plays a critical role in guaranteeing public health and the economic vitality of New York City. By 2030, New York City’s population is expected to have grown 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 New York City’s water infrastructure in PlaNYC, released in April 2007.

NYC water rates are set to cover the system’s operating and capital expenses each year, which include the cost of treatment, transmission and distribution, and state of good repair. Most New York City properties are charged a uniform water rate. Wastewater charges are levied at 159% of water charges. Approximately 6% of all properties (mostly multi-family residential) are billed on the basis of a series of fixed flat-rate “frontage” charges determined by the width of the property’s street frontage, the number of units, building fixtures and other measures.

In the coming fiscal year, operations and maintenance expenses for this vast system will be 39% 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 FY2012. Debt service is a direct result of DEP’s massive capital construction projects, largely because of unfunded mandates required by state and federal regulators. These unfunded capital construction projects—such as the



## Legal Mandates Have Dictated Pace of Capital Investment



Of the \$20.8 billion in capital commitments between FY2002 and FY2010, \$14.9 billion, or 72%, has gone to legal mandates

Croton Water Filtration Plant, the Catskill and Delaware Ultraviolet (UV) Disinfection Facility, and the Newtown Creek Wastewater Treatment Plant—will all have significant citywide impacts on New York’s water and wastewater system.

Constructing these projects simultaneously is costly; for fiscal years 2002 through 2010, 72% of DEP’s capital commitments were directed for mandated projects. While the ratio of mandated to non-mandated capital projects will drop from 2012 onward, DEP’s current daily capital expenditure rate is nearly \$9 million per day on construction, design and construction management. The capital expenditures DEP has incurred were financed through debt that will be repaid over the next thirty years. From July 2006 through June 2011, net debt issuance by the New York City

Water Finance Authority is expected to total \$12.3 billion. The resulting debt service has become the single largest driver of water and wastewater rate increases. Currently, the WFA’s total outstanding debt is \$26.6 billion.

### Rate Consultant’s Recommendations

It is anticipated that the 7.5% increase in water and sewer rates proposed by the Board will yield sufficient revenues to cover the expected cost of providing water and wastewater service in FY2012.

Though the ratio of wastewater system costs to water system costs is currently somewhat lower than historical experience due to recent investments to protect the quality of the City’s water supply, scheduled investments in the capital

improvement program for rehabilitation and construction of wastewater treatment facilities and other projects will cause the ratio of wastewater system costs to increase in the future. Accordingly, the long-term ratio of wastewater system costs to

Mandate	Cost (\$ Billions)	Annual Debt Service Impact* (\$ Millions/year)	Annual Household Cost (\$/year)
Croton Filtration Plant	\$3.0	\$152	\$44
Ultraviolet Disinfection Facility	\$1.6	\$80	\$23
Newtown Creek Treatment Plant	\$5.0	\$144	\$42
All Other	\$7.1	\$206	\$60
<b>Total</b>	<b>\$16.7</b>	<b>\$582</b>	<b>\$169</b>

\* Debt Service Impact is net of any carryover for the years in question

water system costs is reasonable compared to the current ratio of wastewater charges to water charges.

### Process for Water Board Rate Adoption

- The Board must adopt rates that will satisfy the revenue requirements of the system
- The Water Finance Authority projects revenue bond debt service on bonds issued after 1986 to finance water and wastewater capital projects and certifies the FY2012 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 FY2012 amount to the Water Board based on the Mayor's Executive Budget
- The system's consulting engineer must certify that expenses are reasonable and appropriate
- The Board must hold a public hearing in each borough of New York City

### Program Summary

#### FY2012 Rate Proposal

Increase in-city water rates by 7.5% for all customers, flat-rate and metered, and for all billing programs

#### 2% Discount on Metered Bills

Customers who enroll in direct debit and paperless billing will receive a 2% discount for one year

- 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

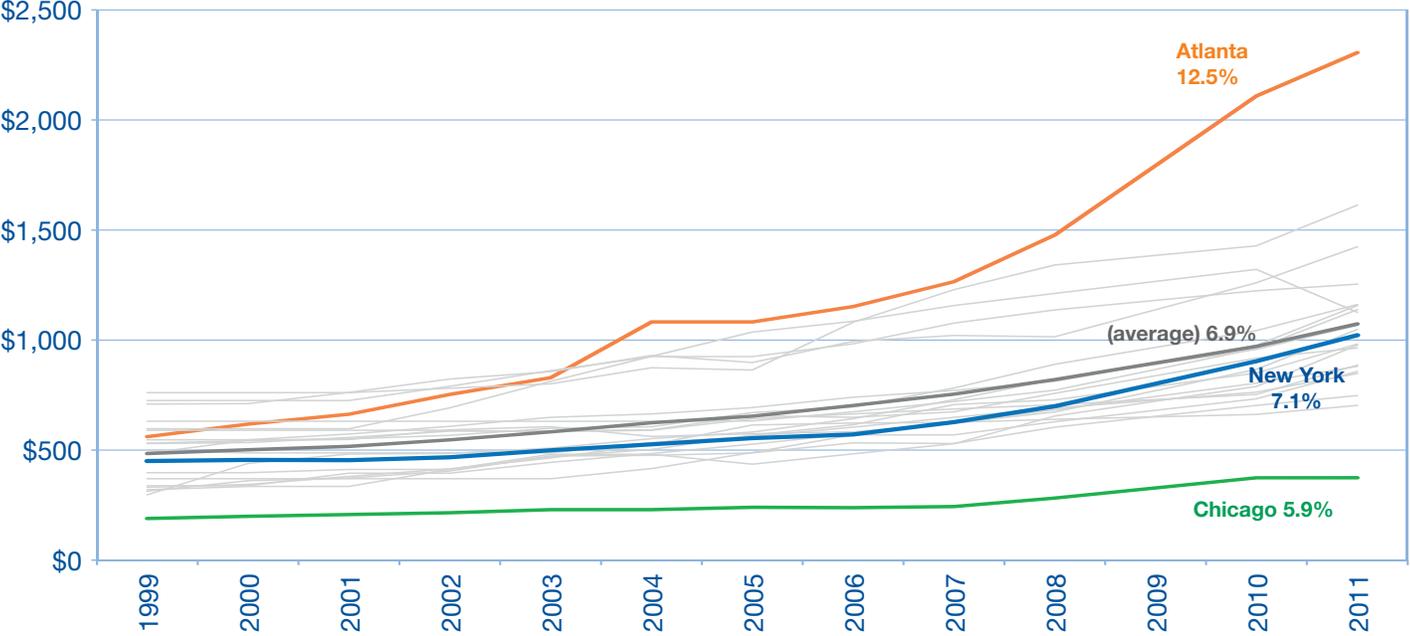
### Schedule for Water Board Rate Adoption

<b>April 8</b>	Rate Proposal to Water Board
<b>May 2 - 10</b>	Public Hearings
<b>May 13</b>	Water Board Meeting to Adopt FY2012 In-City Rate
<b>June 6</b>	Public Hearing on Upstate Rate
<b>June 17</b>	Water Board Meeting to Adopt FY2012 Upstate Rate
<b>July 1</b>	New Rates Become Effective

### Schedule and Location of Public Hearings

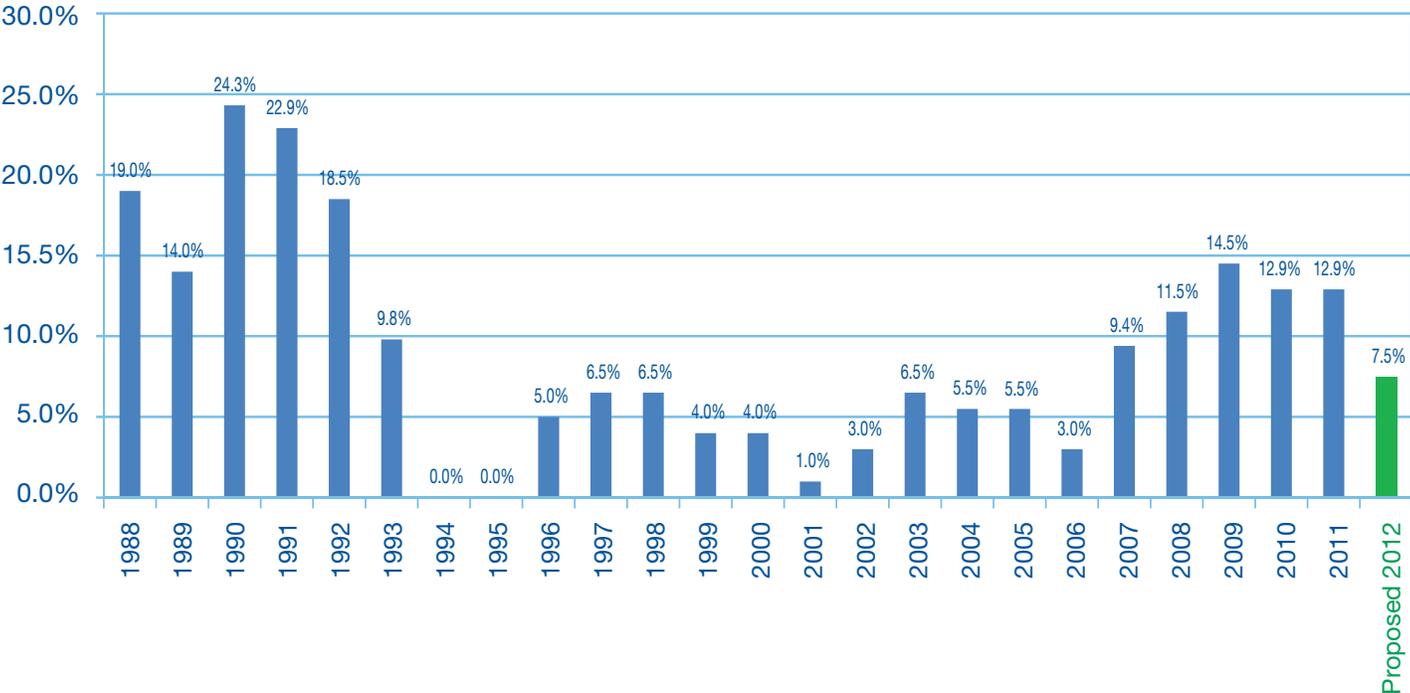
<b>Staten Island</b>	<b>Bronx</b>	<b>Brooklyn</b>	<b>Manhattan</b>	<b>Queens</b>
<b>Monday, May 2</b> <b>8:00 pm</b>	<b>Tuesday, May 3</b> <b>7:00 pm</b>	<b>Wednesday, May 4</b> <b>7:00 pm</b>	<b>Friday, May 6</b> <b>2:00 pm</b>	<b>Tuesday, May 10</b> <b>7:00 pm</b>
Wagner High School 1200 Manor Road Staten Island, NY 10314	Public School 14 3041 Bruckner Blvd. Bronx, NY 10461	Public School 102 211 72nd Street Brooklyn, NY 11209	City Planning Commission 22 Reade Street New York, NY 10007	Public School 499 148-20 Reeves Ave. Flushing, NY 11367

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



Percentages indicate average annual increases from 1999 through 2011

## Water and Sewer Rate History (Percent Change)

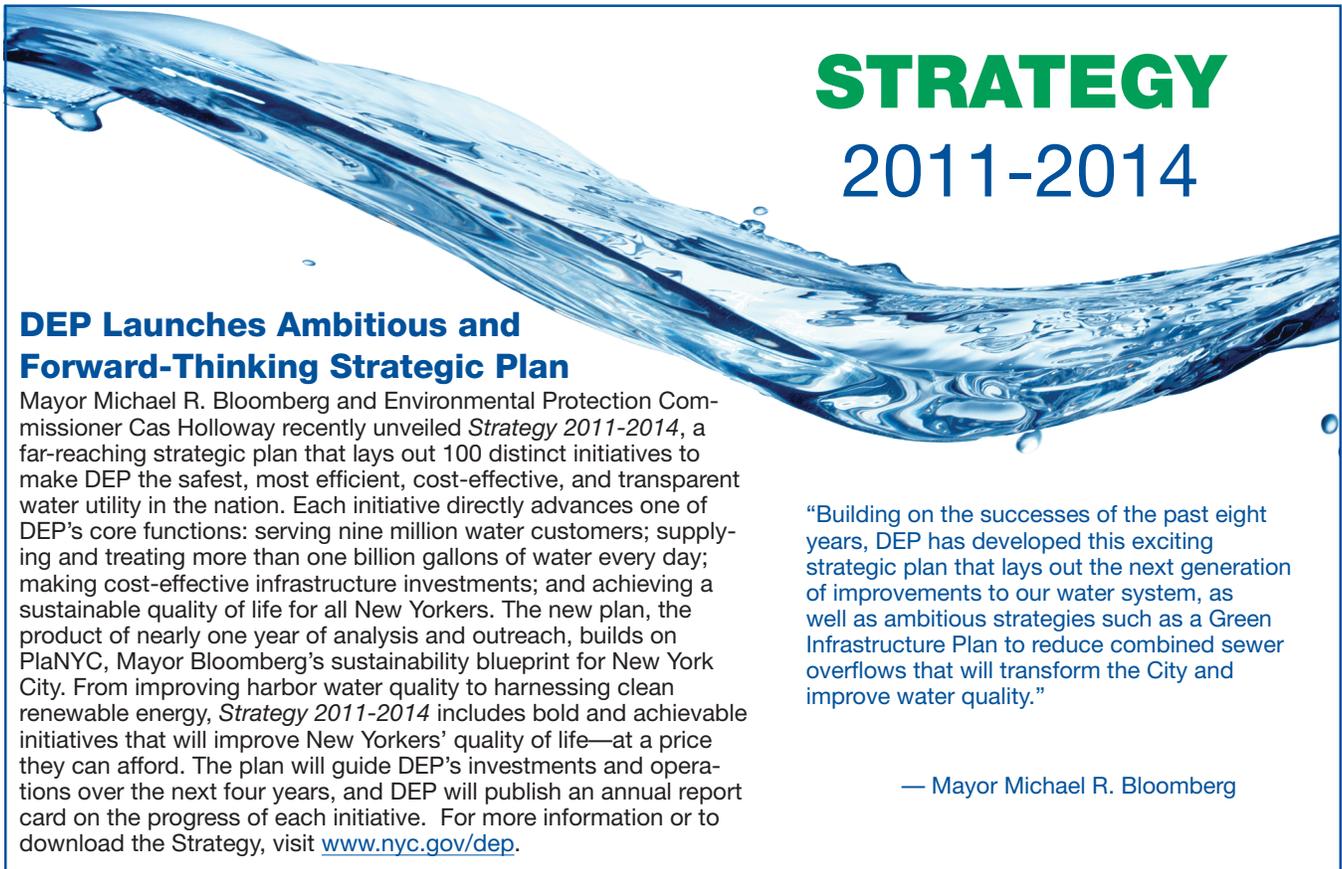


## DEP Capital Program Overview

From FY2002 to FY2010, DEP committed \$20.8 billion to its capital program, and DEP plans to spend an additional \$2.4 billion on its capital program in FY2011. 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 water infrastructure: in 2007, the City was granted a historic 10-year Filtration Avoidance Determination, or FAD, for its Catskill and Delaware water supply systems. The City's harbor waters are as clean as they have been in over 100 years, based on sampling data. Recently DEP and the New York State Department of Environmental Conservation (DEC) recognized that a multi-billion upgrade at the Newtown Creek Wastewater Treatment plants 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 encouraging as these developments are, DEP expects that the coming years will mark a truly exciting time for the City's water and wastewater systems. Soon, multi-phase, decades-long 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, preparations to repair the Delaware Aqueduct, and the rehabilitation of the City's WWTPs will continue to expand and enhance New York City's water and wastewater systems, enabling the City to meet current demand and preparing it for an additional one million people by 2030.



## STRATEGY 2011-2014

### DEP Launches Ambitious and Forward-Thinking Strategic Plan

Mayor Michael R. Bloomberg and Environmental Protection Commissioner Cas Holloway recently unveiled *Strategy 2011-2014*, a far-reaching strategic plan that lays out 100 distinct initiatives to make DEP the safest, most efficient, cost-effective, and transparent water utility in the nation. Each initiative directly advances one of DEP's core functions: serving nine million water customers; supplying and treating more than one billion gallons of water every day; making cost-effective infrastructure investments; and achieving a sustainable quality of life for all New Yorkers. The new plan, the product of nearly one year of analysis and outreach, builds on PlaNYC, Mayor Bloomberg's sustainability blueprint for New York City. From improving harbor water quality to harnessing clean renewable energy, *Strategy 2011-2014* includes bold and achievable initiatives that will improve New Yorkers' quality of life—at a price they can afford. The plan will guide DEP's investments and operations over the next four years, and DEP will publish an annual report card on the progress of each initiative. For more information or to download the Strategy, visit [www.nyc.gov/dep](http://www.nyc.gov/dep).

“Building on the successes of the past eight years, DEP has developed this exciting strategic plan that lays out the next generation of improvements to our water system, as well as ambitious strategies such as a Green Infrastructure Plan to reduce combined sewer overflows that will transform the City and improve water quality.”

— Mayor Michael R. Bloomberg



*The following paragraphs summarize some of the programmatic areas for capital investment as noted in the approved FY2012 Preliminary 10-Year Capital Plan.*

**\$3.1 billion to Upgrade, Modernize, and Maintain Wastewater Treatment Plants (WWTPs) (not including CSOs)**

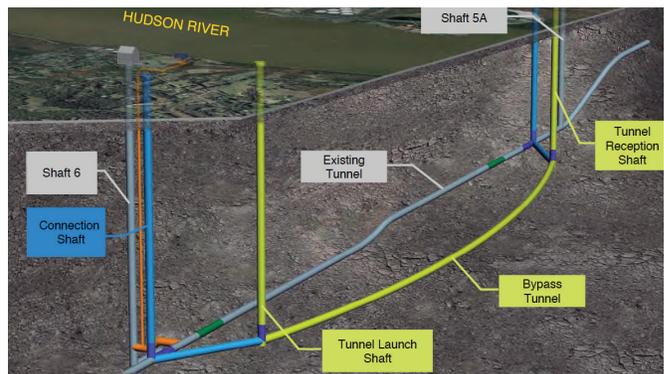
The Water Supply and Wastewater Systems together create a ‘closed loop’: every day, about 1 billion gallons of water is delivered to New York City, and every day the City’s 14 WWTPs collectively treat about 1.3 billion gallons of wastewater. Both the effectiveness of these plants and the skill of their 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 NYC’s Water Supply System and to Explore Alternative Sources**

Nine million people throughout New York 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 2010, DEP unveiled a design and timeline to repair leaks in the Delaware Aqueduct, one of New York 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 for adjacent municipalities and implementing conservation measures. A groundbreaking on the bypass is expected in 2013 and the entire project will be complete in 2019.

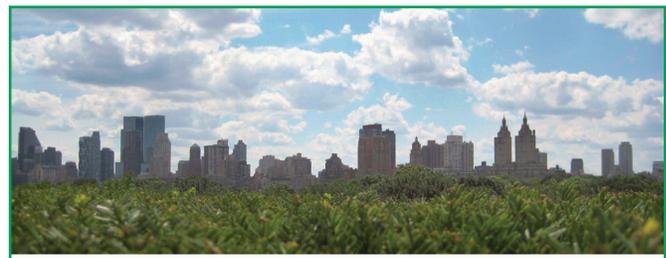
**\$1.9 billion for Upstate Watershed Protection (not including the Catskill/Delaware UV Disinfection Facility)**

Maintaining New York 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 preserve the water itself. After creating an ecological buffer around its source waters, New York City was recently awarded a 10-year FAD from the Environmental Protection Agency (EPA). The FAD, double the length of the previous one given to the City, testifies to the effectiveness of New York 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; the Agency has also paid for the upgrade of the existing WWTPs in the watersheds, and a portion of the O&M 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 and constructs basic infrastructure such as dams, bridges, and roads and acquire land. Under the Bloomberg administration, land holdings in the watershed have doubled; New York City already protects about 161,300 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.

### **\$1.8 billion to Improve New York City's Water Quality and Prevent Untreated Sewage from entering the Harbor (CSOs)**

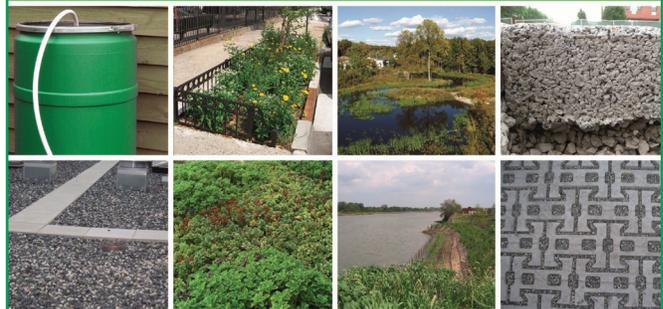
One of the goals of Mayor Bloomberg's PlaNYC—the City's comprehensive plan for creating a greener, more sustainable City—is to open 90% of the City's water ways for recreation by 2030. The funds in the current 10-year program will continue the City's successes in protecting local water ways—programs 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 waste and stormwater in the system. By updating our stormwater management system with both traditional mechanical upgrades (such as sewer reconstruction and pumping stations), as well as green infrastructure (such as tree pits, permeable pavements, rain barrels, and green roofs), New York City's water ways will continue to improve.



## **NYC GREEN INFRASTRUCTURE PLAN**

A SUSTAINABLE STRATEGY FOR CLEAN WATERWAYS

Michael R. Bloomberg, Mayor  
Cas Holloway, Commissioner



New York 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 the New York City Department of Environmental Protection's (DEP's) investment of billions of dollars in sewer and wastewater treatment plant upgrades. But in those waterbodies that do not yet meet water quality standards for pathogens, the biggest remaining challenge is to further reduce combined sewer overflows (CSOs) that discharge a mixture of untreated sewage and stormwater runoff when it rains. Traditional approaches to reduce CSOs further would include the construction of additional, large infrastructure, but the remaining opportunities for such construction are very expensive and do not provide the sustainability benefits that New Yorkers rightly expect from multi-billion dollar investments of public funds.

### **\$28 million for the Continued Construction of the Ultraviolet (UV) Disinfection Facility for the Catskill and Delaware Water Supplies**

To support the 10-year FAD, New York City is constructing the Catskill and Delaware UV Disinfection Facility. Once operational, this facility will be able to treat 2.4 billion gallons of water a day, double the capacity of all other existing UV treatment facilities in North America. The Facility, which is being constructed in Westchester County, will serve as an additional barrier against microbiological agents, such as *Cryptosporidium* and *Giardia*. Because of this investment, New York City will not have to build a \$10 billion-plus filtration plant for Catskill and Delaware water, allowing NYC to remain one of five large cities to have the majority of its water from unfiltered sources.



### **\$924 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 Tunnels No. 1 and 2 for the first time in their 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, Queens, as well as completing and activating shafts in Manhattan. All told, City Water Tunnel No. 3 represents a \$6 billion investment in New York City.



### **\$146 million to Build, Expand, Support, and Maintain the Staten Island Bluebelt System**

As DEP modernizes and expands its traditional infrastructure (with upgrades to its wastewater treatment plants, sewer systems, and CSO storage tanks), the Agency 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.



### **\$345 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 New York's daily demand. The Croton Water Filtration Plant will filter water provided by the Croton reservoir system, the oldest and smallest of New York 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 Plant will be 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 New York City Department of Parks and Recreation to fund \$200 million for developing parks throughout the Bronx. The Croton Water Filtration Plant will ensure the viability of the critical Croton reservoir system and secure New York City's water distribution network.

## **FY2012 Billing Policy Proposals and Changes to Miscellaneous Credits**

### **Direct Debit and Paperless Billing Discount**

DEP proposes that the 2% discount for metered customers who have enrolled in DEP's Direct Debit program be extended for one year to customers who enroll in both the Direct Debit and Paperless Billing programs.

### **Lead and Copper Monitoring Program Credit**

DEP proposes to offer a \$25 credit to registered participants in the lead and copper monitoring program. This credit will be applied to customers' bills upon successful completion of a lead and copper monitoring test.

### **Installment Payment Agreement Terms**

DEP proposes to amend the Installment Payment Agreement terms to reflect recent City Council legislation. The terms will be revised to include options for no down payment, a repayment period of up to ten years, and new default provisions.

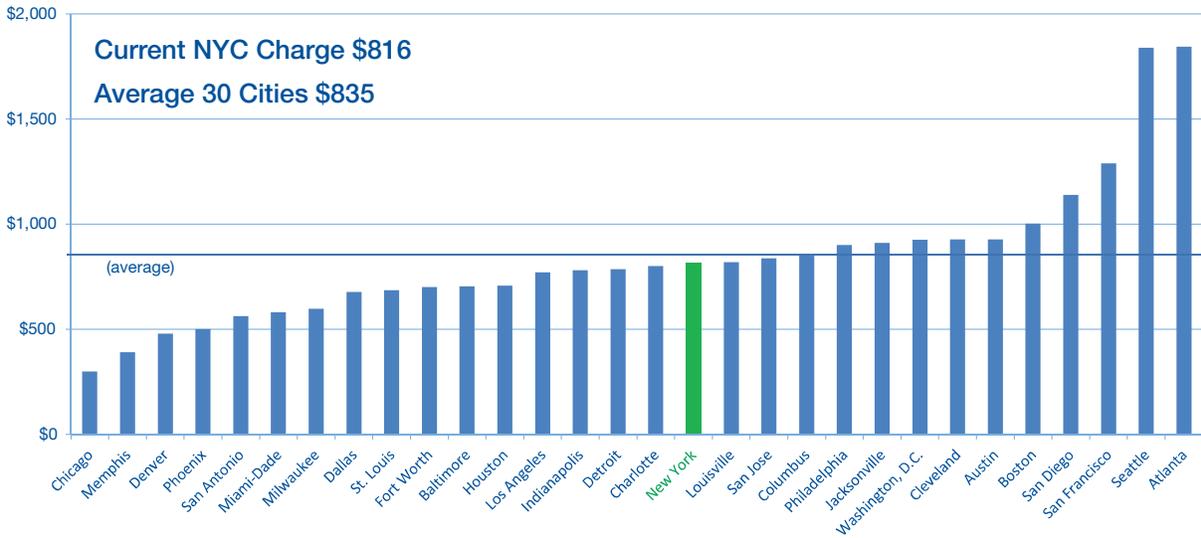
### **Maximum Fixture Flow Rates**

DEP proposes to conform the maximum fixture flow-rates to qualify for a reduced water rate pursuant to the Board's Comprehensive Water Reuse program to recent changes to the NYC Plumbing Code.

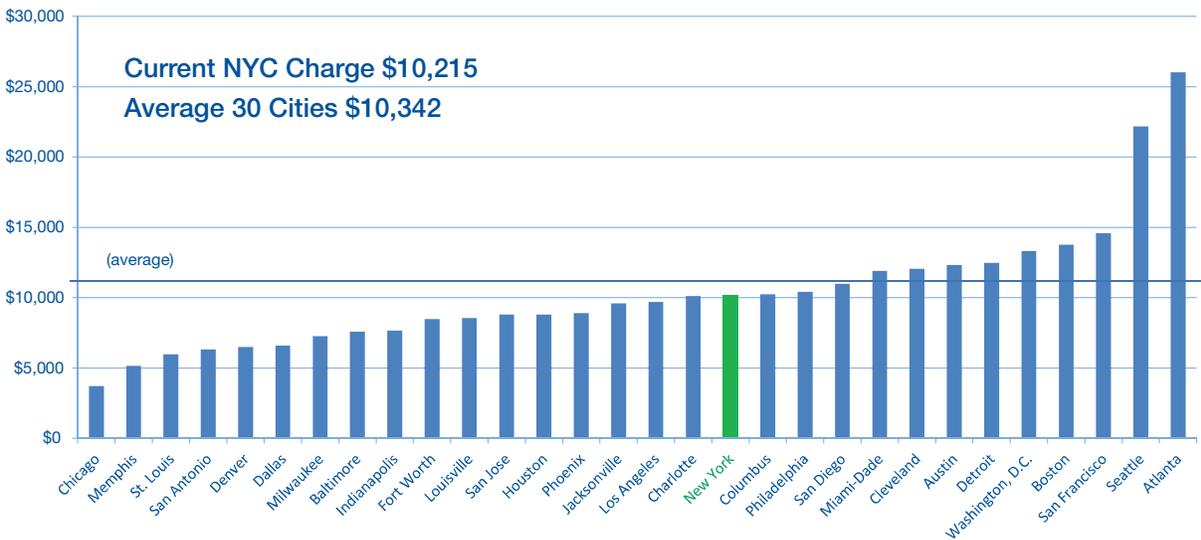
### **Denial of Access Proceeding Mailings**

Customers subject to a denial of access proceeding currently receive all three required notices by both first-class and certified mail. DEP proposes to change the delivery of the first required notice, which has no concurrent financial impact on the customer, to first-class mail only; the final two required notices will continue to be sent by both first-class and certified mail.

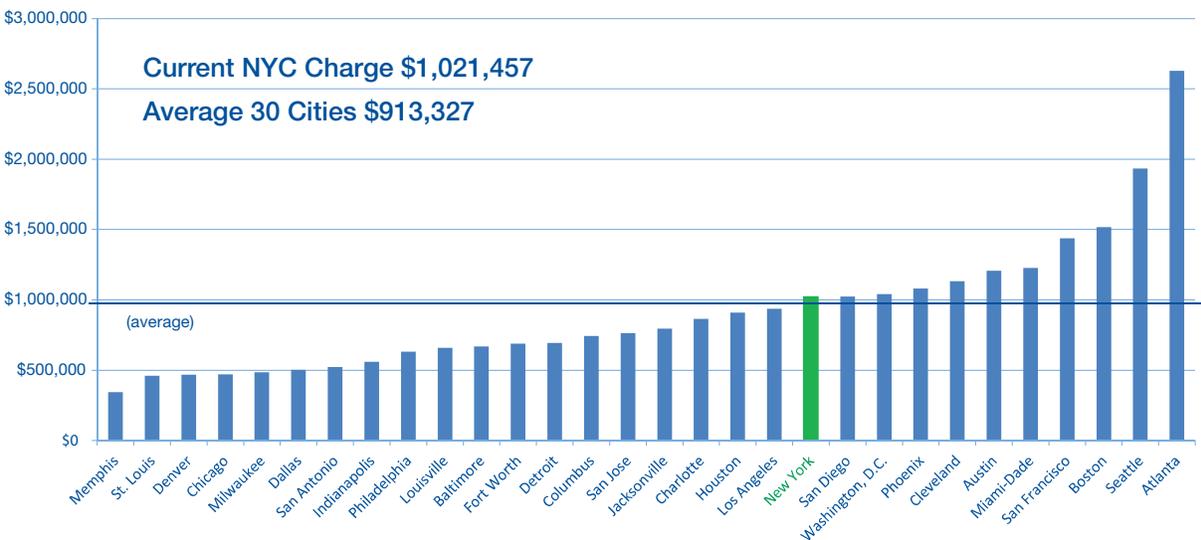
### Annual Water/Wastewater FY2011 Charges (Residential)



### Annual Water/Wastewater FY2011 Charges (Commercial)



### Annual Water/Wastewater FY2011 Charges (Industrial)



Annual estimates are based on rates in effect March 1, 2011. Consumption is estimated to be 80,000 gallons for residential, one million gallons for commercial, and 100 million gallons for industrial customers.

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

	FY2011	FY2012	Change
<b>Operating Revenues</b>			
Water/Sewer User Payments	\$ 2,843.6	\$3,032.7	\$189.1
Upstate Revenues	\$51.2	\$55.0	\$3.8
Miscellaneous Revenue	\$18.9	\$18.5	(\$0.4)
<b>Other Revenues</b>			
Federal Credit Pmt. On Outstanding Build America Bonds	\$64.2	\$75.5	\$11.3
Water Finance Authority Investment Income	\$49.5	\$50.0	\$0.5
<b>Current Revenues Available for Debt Service</b>	<b>\$3,027.4</b>	<b>\$3,231.7</b>	<b>\$204.3</b>
<b>WFA Debt Service</b>			
<b>First Resolution Debt Service:</b>			
Outstanding Bonds	\$559.6	\$559.4	(\$0.2)
Anticipated Future Bonds	-	\$10.2	\$10.2
<b>Total First Resolution Bonds</b>	<b>\$559.6</b>	<b>\$569.6</b>	<b>\$10.0</b>
<b>Subordinate Obligations:</b>			
Outstanding Second Resolution Authority Bonds	\$444.9	\$553.6	\$108.7
Anticipated Future Second Resolution Authority Bonds	\$3.2	\$54.2	\$51.0
Interest on Commercial Paper	\$4.0	\$34.0	\$30.0
Outstanding Second Resolution EFC Bonds	\$508.0	\$513.6	\$5.6
Anticipated Future Second Resolution Bonds	-	\$50.6	\$50.6
Less: EFC Subsidy and Cap Interest	(\$111.4)	(\$124.5)	(\$13.1)
<b>Actual Debt Service on Subordinated Obligations</b>	<b>\$848.7</b>	<b>\$1,081.5</b>	<b>\$232.8</b>
Less: Prior Year-end Cash Balance	(\$245.0)	(\$292.4)	(\$47.4)
<b>Net Debt Service on Subordinated Obligations</b>	<b>\$603.7</b>	<b>\$789.1</b>	<b>\$185.4</b>
<b>Total Debt Service Payable from Current Revenues</b>	<b>\$1,163.3</b>	<b>\$1,358.7</b>	<b>\$195.4</b>
<b>Operating Expenses</b>			
Authority/Board Operations	\$43.2	\$55.4	\$12.2
Net Authority Expense for the Defeasance of Debt Water System	\$260.0		
Wastewater System	\$497.1	\$504.8	\$7.7
Indirect Expense	\$627.8	\$656.0	\$28.2
Judgment and Claims	\$19.0	\$19.0	-
	\$8.0	\$8.0	-
<b>Total Operating and Maintenance Expenses</b>	<b>\$1,455.1</b>	<b>\$1,243.2</b>	<b>(\$211.9)</b>
Less: Credit for Prior Year Excess O&M Payment	(\$88.0)	-	\$88.0
Less: Trust Account Withdrawals	-	-	-
Rental Payment	\$202.2	\$236.9	\$34.7
Deposits to O&M Reserve Fund	\$2.4	\$14.1	\$11.7
Current Capital Contribution	-	\$125.0	\$125.0
<b>Total Operating Expenses</b>	<b>\$1,571.7</b>	<b>\$1,619.2</b>	<b>\$47.5</b>
<b>Total Expenses</b>	<b>\$2,735.0</b>	<b>\$2,977.7</b>	<b>\$242.9</b>
<b>Year-end Cash Balance</b>	<b>\$292.4</b>	<b>\$253.8</b>	<b>(\$38.6)</b>

### Capital Improvement Program: FY2011-2021

Project Type	2011	2012	2013	2014	2015	2011-2015	
Equipment	155,936	72,685	108,892	175,912	91,500	604,925	
Sewers	550,679	467,536	172,180	195,312	112,858	1,498,565	
Water Supply	5,053	189,744	678,380	322,393	682,417	1,877,987	
Water Mains	1,097,170	574,874	512,209	261,619	115,608	2,561,480	
Water Pollution Control	639,199	398,355	473,017	657,476	330,810	2,498,857	
<b>Total</b>	<b>2,448,037</b>	<b>1,703,194</b>	<b>1,944,678</b>	<b>1,612,712</b>	<b>1,333,193</b>	<b>9,041,814</b>	

Project Type	2016	2017	2018	2019	2020	2021	2011-2021
Equipment	73,514	49,810	45,798	26,338	48,500	29,162	878,047
Sewers	227,015	118,766	98,042	126,317	144,423	168,277	2,381,405
Water Supply	1,442	122,467	216,475	1,482	1,000	301,000	2,521,853
Water Mains	325,080	183,387	185,586	112,346	427,382	105,633	3,900,894
Water Pollution Control	539,882	425,619	361,670	569,677	284,962	211,711	4,892,378
<b>Total</b>	<b>1,166,933</b>	<b>900,049</b>	<b>907,571</b>	<b>836,160</b>	<b>906,267</b>	<b>815,783</b>	<b>14,574,577</b>

### Capital Improvement Program: FY2011-2021 (Investment Allocation by Category)

	2011	2012	2013	2014	2015	2011-2015	
Mandated	535,728	247,580	406,874	335,089	282,900	1,808,171	
Non-Mandated	1,912,309	1,455,614	1,537,804	1,277,623	1,050,293	7,233,643	
<b>Total</b>	<b>2,448,037</b>	<b>1,703,194</b>	<b>1,944,678</b>	<b>1,612,712</b>	<b>1,333,193</b>	<b>9,041,814</b>	

	2016	2017	2018	2019	2020	2021	2011-2021
Mandated	413,402	194,672	162,153	377,605	537,962	43	3,494,008
Non-Mandated	753,531	705,377	745,418	458,555	368,305	815,740	11,080,569
<b>Total</b>	<b>1,166,933</b>	<b>900,049</b>	<b>907,571</b>	<b>836,160</b>	<b>906,267</b>	<b>815,783</b>	<b>14,574,577</b>

### Typical New York City Charges FY2012 (with Proposed 7.5% Rate Increase)

	FY2011 Average	FY2012 Average	Change
<b>Metered Customers, Rates per 100 Cubic Feet</b>			
Water	\$2.95	\$3.17	\$0.22
Wastewater	\$4.69	\$5.04	\$0.35
Combined	\$7.64	\$8.21	\$0.57
<b>Typical Metered Charges, Average Annual Charges</b>			
Single Family (80,000 gallons)	\$816	\$877	\$61
Multifamily Dwelling Unit (52,000 gallons)	\$531	\$571	\$40
<b>Unmetered Frontage Accounts</b>			
Average Annual Frontage Bill	\$15,868	\$17,058	\$1,190



NEW YORK CITY  
WATER  
BOARD