

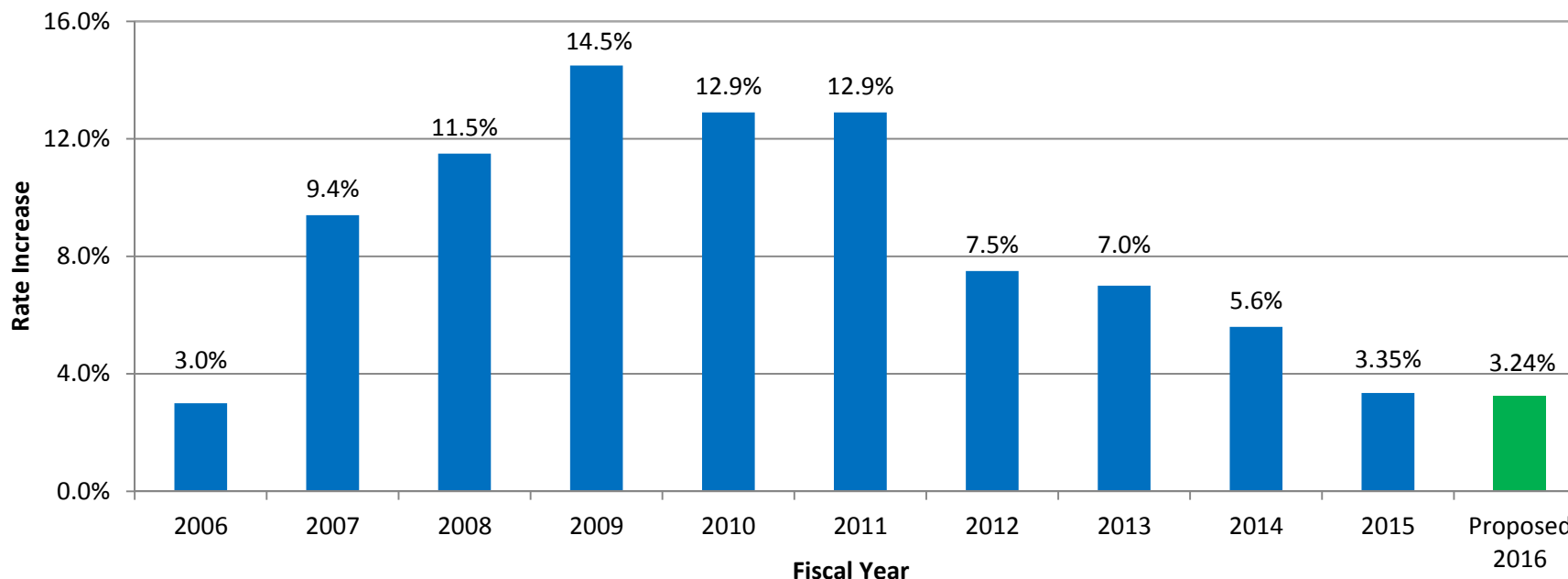


FY 2016 Water Rate Proposal to the New York City Water Board

April 2015

FY 2016 Rate Proposal Summary

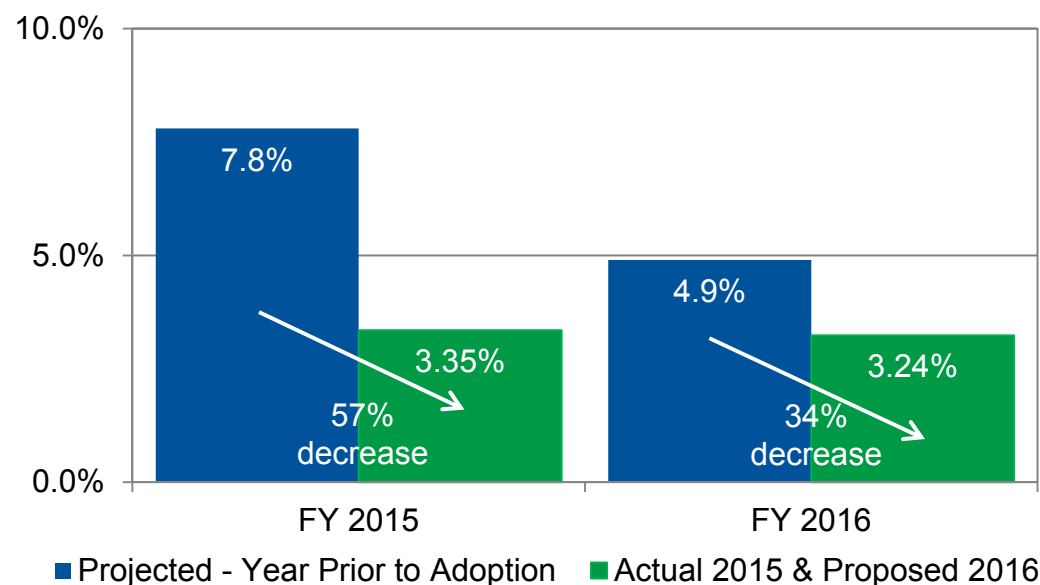
- Proposing **3.24%** rate increase
- Lowest rate increase since FY 2006, 10 years ago



Water and Sewer Charges	FY 2015	FY 2016 (3.24% Increase)
Combined Water & Sewer Rate per hundred cubic feet (748 gallons)	\$9.58	\$9.89 (31¢)
Average Annual Single Family Charge (80,000 gal)	\$1,025	\$1,058 (\$33)
Average Annual Multi-family Metered Charge (52,000 gal)	\$666	\$688 (\$22)
Multi-family Conservation Program – Residential Unit	\$976	\$1,007 (\$31)

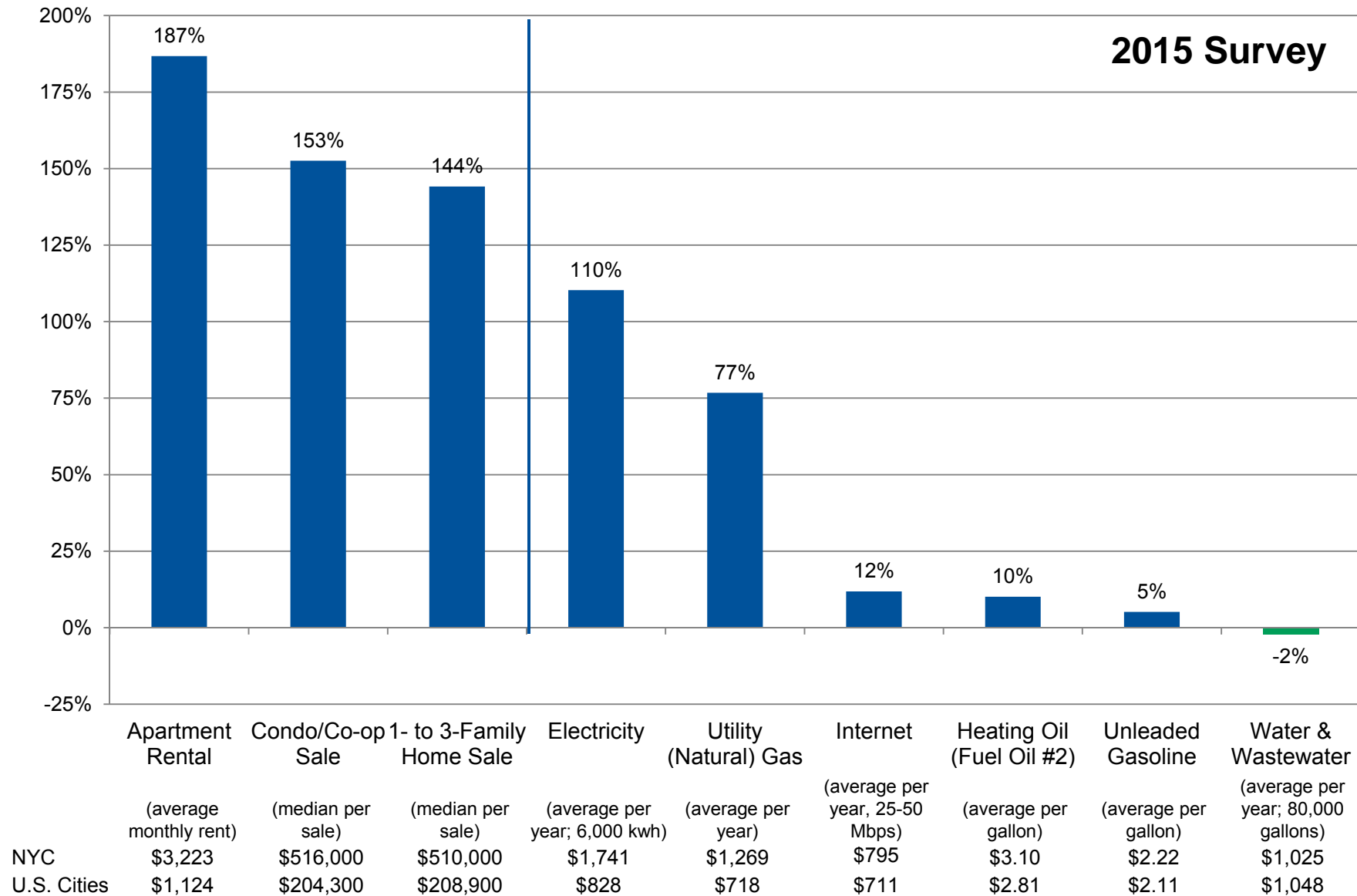
FY 2016 Rate Proposal Summary

- Proposing 3.24% rate increase
- 34% lower than last year's projection of FY 2016 rate increase due to:
 - Low interest rates reduced projected debt service by \$195 million
 - Strong FY 2015 revenues projected to be \$82 million ahead of plan
 - Positive FY 2014 financial results yielded \$291 million of additional carried-forward revenue for FY 2015
 - Includes a one-time \$83 million payment from Exxon Mobil
 - Operational cost savings and underspending of \$71 million



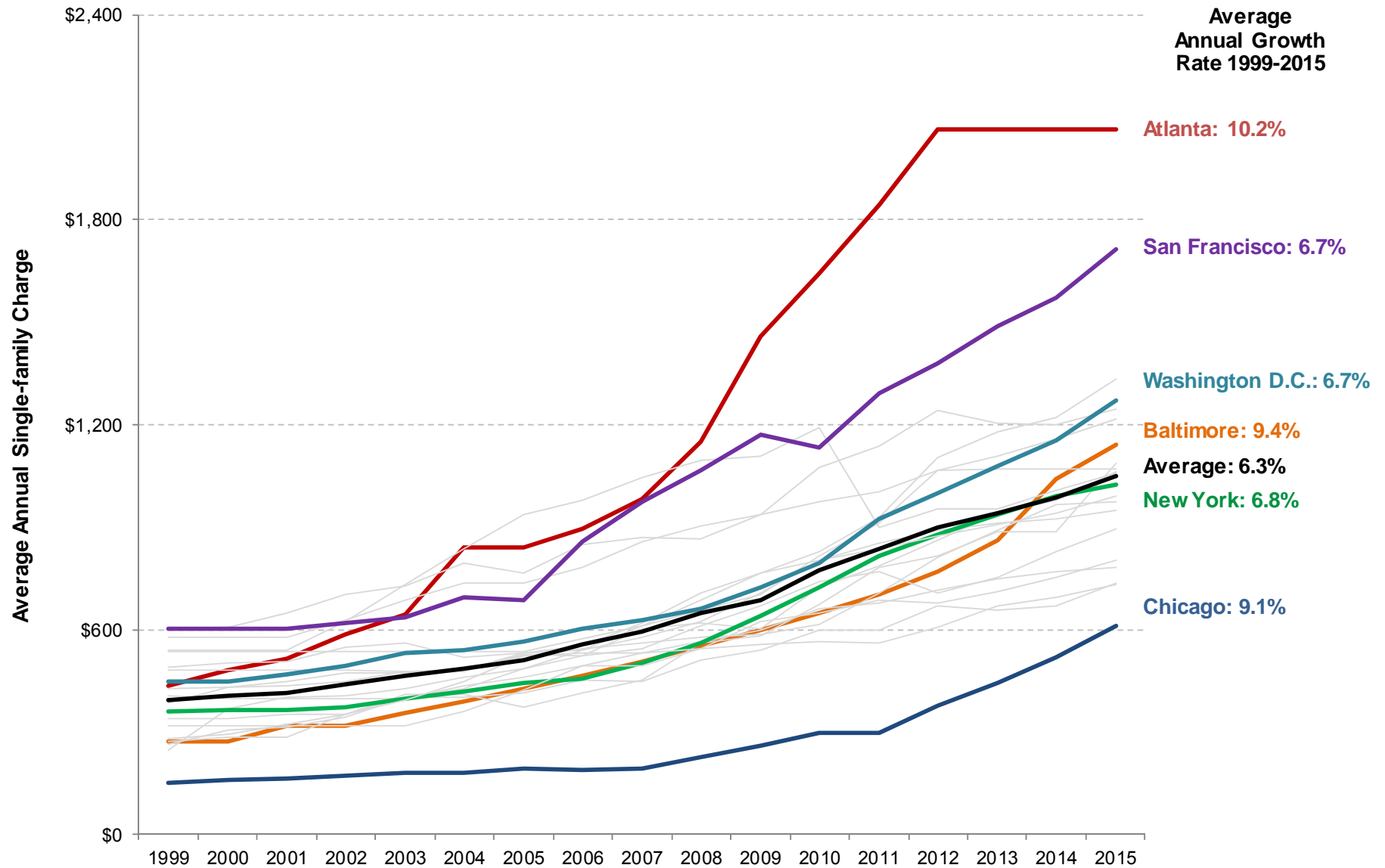
Difference in Consumer Costs, NYC vs. U.S.

2015 Survey



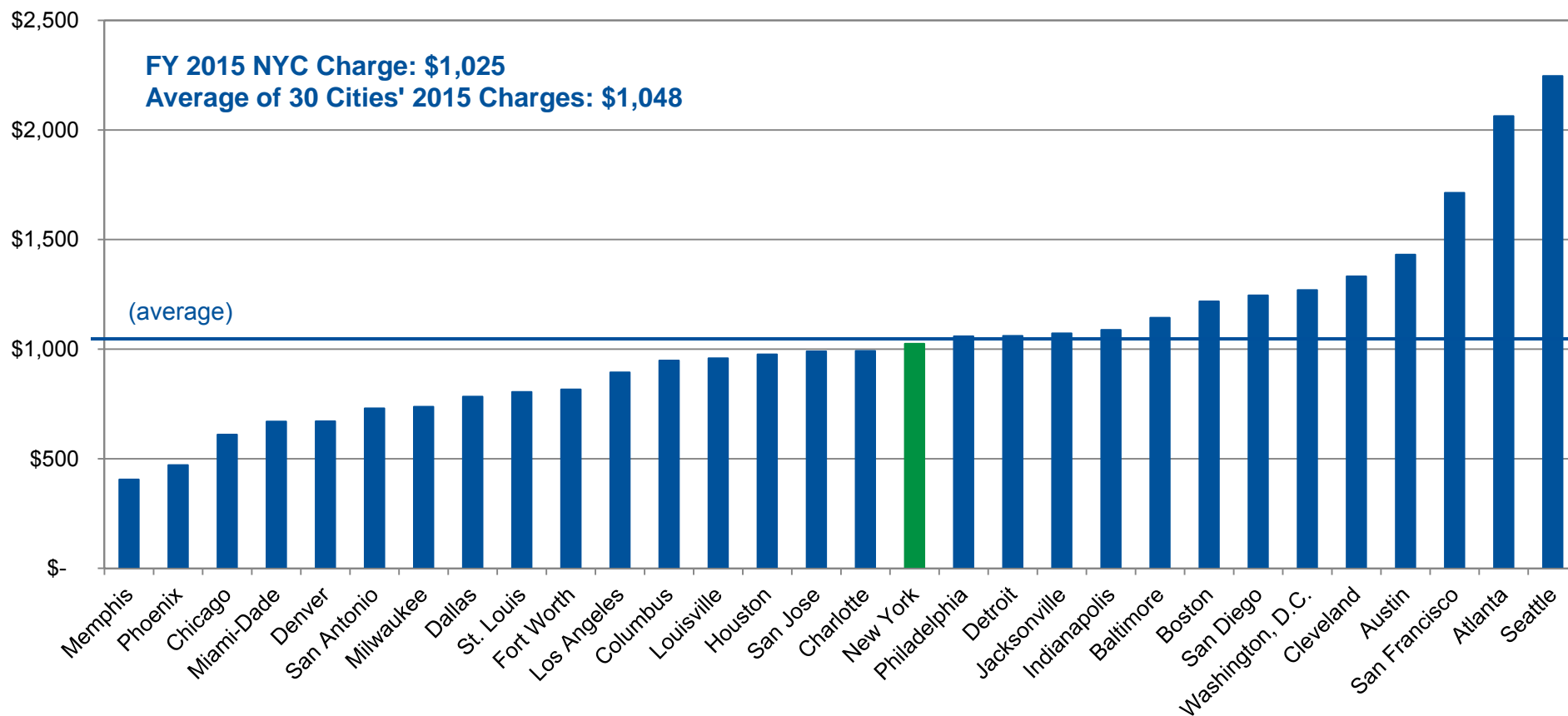
Source: Wall Street Journal and New York Times (apartment rental); The Real Estate Board of New York and National Association of Realtors (condo/co-op and 1-3 family home sale); Consolidated Edison and U.S. Bureau of Labor Statistics "BLS" (electricity); National Grid and American Gas Association (natural gas); The Open Technology Institute (internet); New York State Energy Research and Development Authority and U.S. BLS (heating oil); U.S. BLS (gasoline); NYC FY 2015 Water and Wastewater Rate Report (water & wastewater)

Rate Trends in Major Cities



All estimates based on consumption of 80,000 gallons per year

Average Annual Residential Charges



DEP's Mission

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

DEP will accomplish this mission by:

- Serving nine million people daily
- 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
- Building capital projects on time and on budget



Water Supply

- Deliver 1.1 billion gallons/day to 9 million+ customers
- Protect 2,000 square mile watershed, including 19 reservoirs and three controlled lakes
- Maintain dams, aqueducts, shafts, 7,000 miles of water mains, and 110,000 fire hydrants
- Perform 550,000 water quality tests per year



Wastewater Treatment

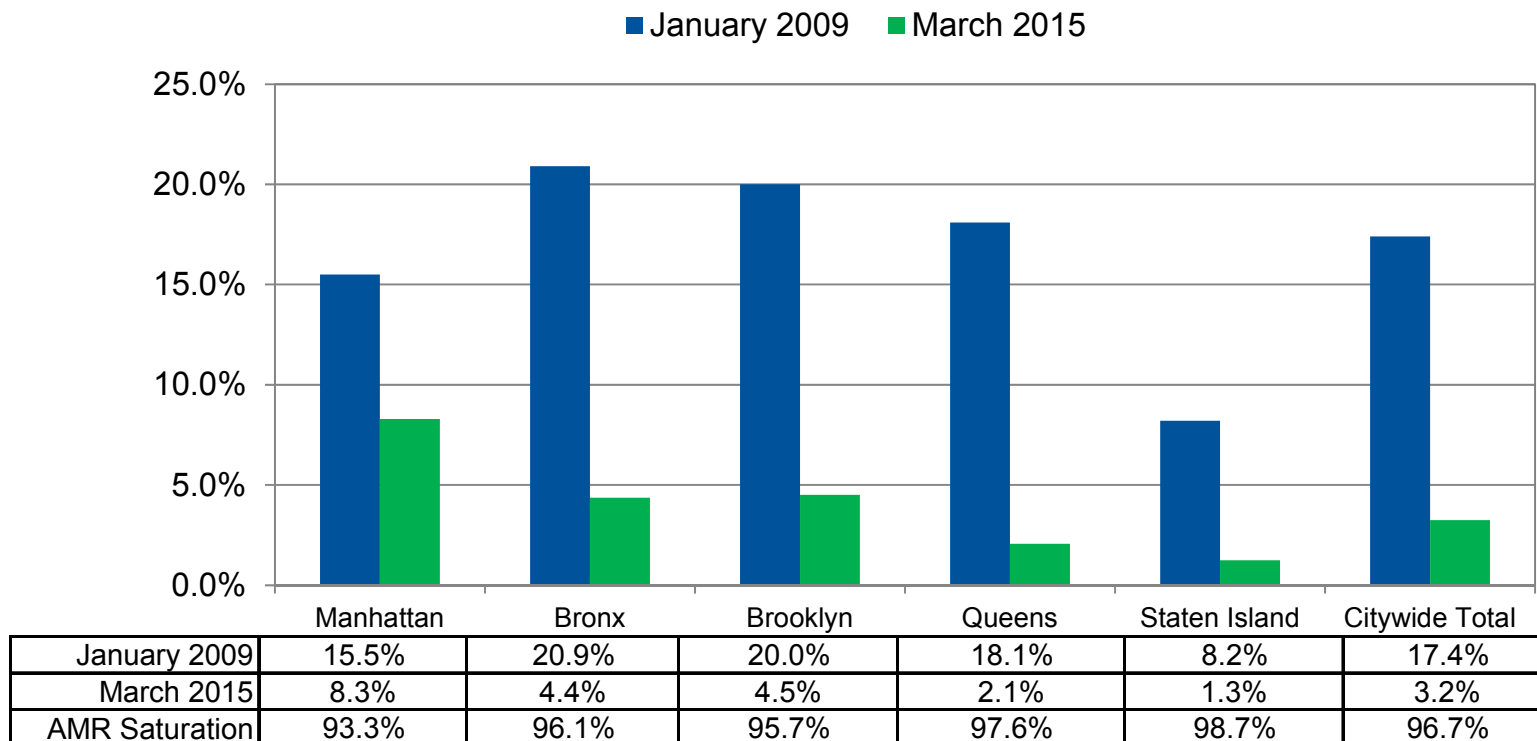
- Treat 1.2 billion gallons of wastewater each day
- Operate and maintain 14 wastewater treatment plants (WWTPs), 96 pumping stations, and 7,400 miles of sewers
- Manage stormwater through green infrastructure, 148,000 catch basins, storm sewers, 4 major combined sewer overflow tanks, and Bluebelts



Customer Service

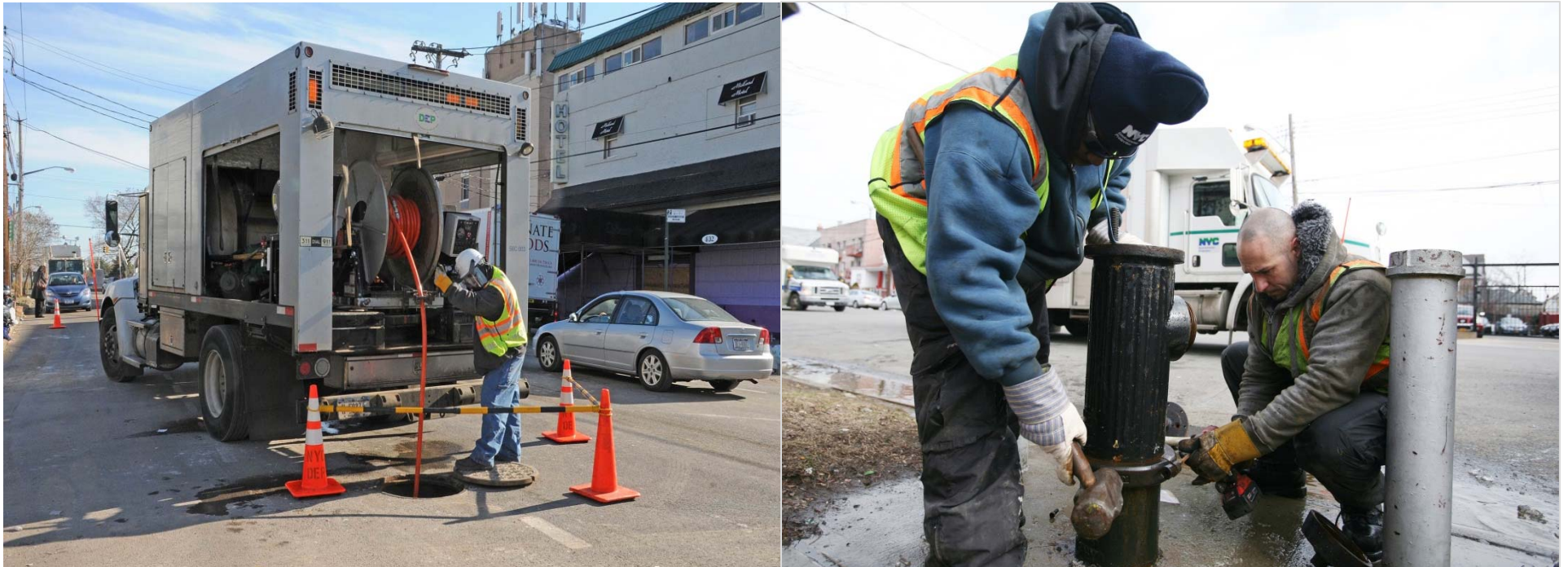
- Automated meter reading (AMR) has reduced estimated bills by 81% since 2009 and billing disputes by 56% since 2011
- 230,200 customers have enrolled in the Leak Notification Program, saving participants \$64 million in leak-related charges
- The Water Board's changes to Leak Forgiveness in FY 2015 have benefitted 1,500 customers, resulting in \$1.5 million in leak forgiveness
- 177,000 customers have enrolled in the Service Line Protection Program

Estimated Bills: January 2009 vs. March 2015



Operations

- Investment in DEP's operations and maintenance has improved service citywide
- Compared to this time in FY 2014, in FY 2015:
 - Resolution of catch basin complaints is 21% faster
 - Average time to repair or replace hydrants has improved by 22%
 - 37% fewer complaints have been received about leaks on private infrastructure



Rate Mitigation – *OpX* Benefit

- DEP has implemented *OpX* initiatives that provide annual recurring savings of \$45.4 million, including:
 - Renegotiation of chemical and service contracts (\$12.5 million)
 - Energy savings from wastewater process improvements, such as demand management, aeration optimization and participation in demand response programs (\$7.1 million)
 - Reduction in usage of hypochlorite, polymer, fluoride, and caustic (\$5.1 million)
 - Improvement in sludge thickening, digestion, and reduced solids handling from the wastewater treatment process (\$4 million)
 - IT and landline optimization and fleet improvements (\$4 million)
- DEP has strategically replaced more than 21,200 large meters through *OpX*, resulting in \$52.8 million in additional annual revenue

Capital Project Achievements

- Croton Filtration Plant (\$3.2 billion)
 - Capacity to filter 290 MGD
 - Operation scheduled for May 2015
- New Croton Aqueduct (\$177 million)
 - Rehabilitation of 33-mile long tunnel
- Gilboa Dam reconstruction to meet safety standards (\$144 million)
 - Completed two years ahead of schedule



Gilboa Dam



Croton Filtration Plant



Pump Station inside Croton Filtration Plant

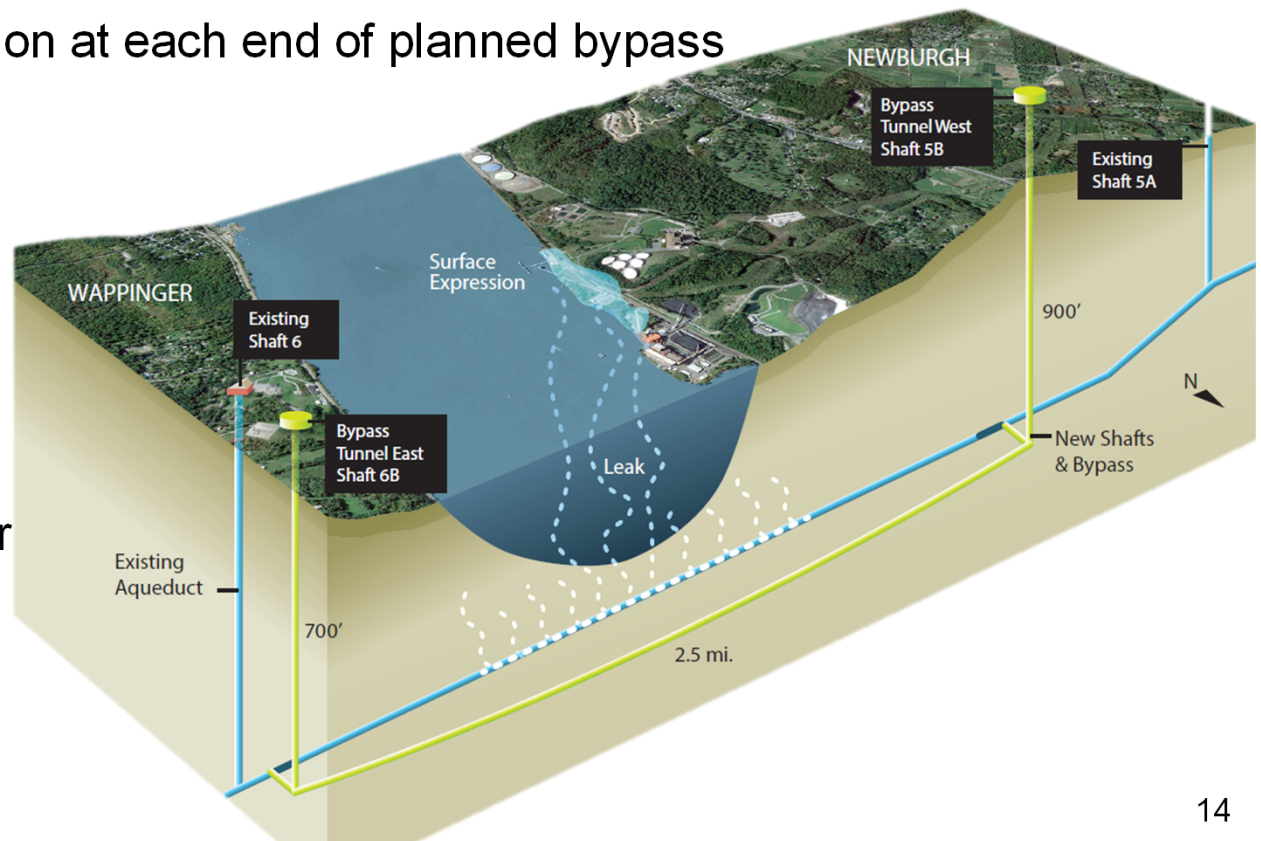
DEP's Capital Priorities 2015-2025

- *Water for the Future*, including construction of shafts and tunnel for Delaware Aqueduct repair (\$1.1 billion)
- Green infrastructure projects (\$879 million)
- Energy and energy efficiency projects (\$639 million)
- Kensico Eastview Tunnel connection (\$511 million)
- Upstate dam reconstruction (\$379 million)
- Southeast Queens water and sewer infrastructure (\$314 million)
- Programs to support the Filtration Avoidance Determination (\$261 million)
- Coney Island and Hudson Yards water and sewer line construction (\$234 million)
- Third Water Tunnel connections (\$128 million)



Water for the Future

- DEP will ensure the dependability of our water by repairing leaks in the Delaware Aqueduct through the \$1.1 billion *Water for the Future* program
- The program concludes by connecting the Rondout-West Branch Tunnel bypass to the Delaware Aqueduct beginning in 2021
 - Anticipated duration of Delaware Aqueduct shutdown is 6 to 10 months
- By FY 2016, DEP will:
 - Bid and register the bypass tunnel construction contract
 - Complete shaft construction at each end of planned bypass
 - Complete construction and start-up of interconnection facilities that will transfer water from the Delaware to the Catskill Aqueduct
 - Design for repair and rehabilitation of the Upper Catskill Aqueduct
 - Continue program to reduce water consumption by 5%



Long-term Control Plans

- Under an administrative consent order with the New York State Department of Environmental Conservation (DEC), DEP is required to submit long-term control plans (LTCPs) for combined sewer overflows (CSOs)
- LTCPs are being developed for ten waterbodies, as well as a citywide plan for the East River and open waters
- \$1.3 billion is set aside in the capital budget to fund the LTCPs

CSO Waterbodies

Alley Creek	Gowanus Canal
Westchester Creek	Jamaica Tributaries & Bay
Hutchinson River	Coney Island Creek
Flushing Creek	Flushing Bay
Bronx River	Newtown Creek
Citywide (East River and open waters)	



Resiliency Planning and Sustainability

- Presented key sustainability initiatives in *OneNYC*, including:
 - Offer high-quality water services in all areas of the City
 - Reduce CSOs and the risks of flooding in affected neighborhoods by implementing green and grey infrastructure (e.g., Bluebelts, storm sewers)
 - Achieve net zero energy consumption at WWTPs by 2050
 - Develop cogeneration facilities at North River WWTP
 - Expand organics program at Newtown Creek WWTP to Hunts Point WWTP to process up to 250 tons of food waste per day, converting it into energy
 - Invest in technology to support innovative water and wastewater rate structures
- Published *NYC Wastewater Resiliency Plan* in October 2013 and adopted wastewater facility design standards for storm surge/sea level rise

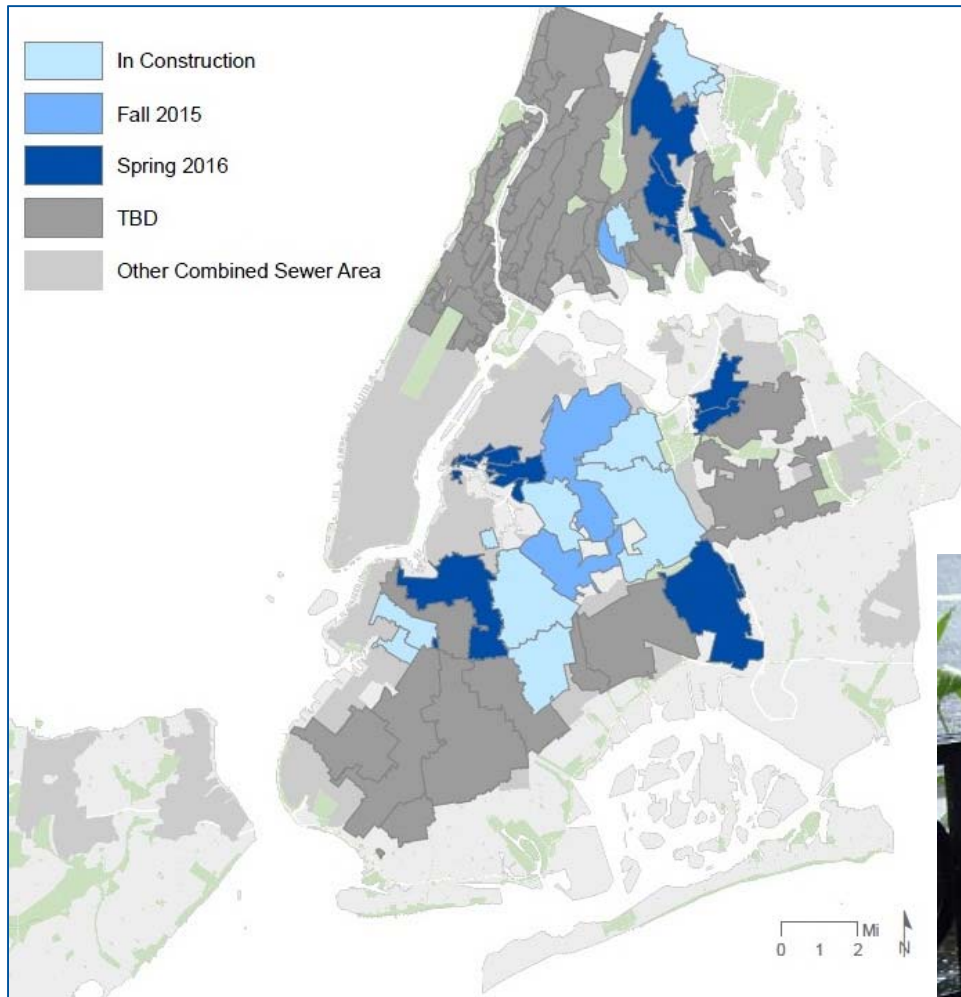


Bluebelt



Cogeneration at North River WWTP

Green Infrastructure



- Addressing Green Infrastructure construction in 29 priority areas
- To date, DEP has:
 - Committed more than \$200 million to Green Infrastructure projects
 - Constructed more than 364 Green Infrastructure assets



Green Infrastructure

- Committed \$36 million to the Community Parks Initiative for Green Infrastructure stormwater controls in parks citywide
- Constructed six public school playgrounds in partnership with the Trust for Public Land; in total, 40 will be created
- For investments on private property, provided \$13.6 million in grants, which have been matched with more than \$5.2 million of private funds



Green Roof at Bishop Loughlin High School



P.S. 261 Playground - Before



P.S. 261 Green Playground - After

Water Demand Management

- Reduce water demand by 5% by 2021
- Toilet replacement program; estimated to save 10 million gallons of water per day
 - Replace toilets with low-flow models that use 1.28 gallons or less per flush
 - Toilet vouchers worth \$125 per fixture are available for properties enrolled in the Multi-Family Conservation Program; 260 vouchers for a total of 1,300 toilets requested to date
- Municipal Water Efficiency Program
 - Install activation buttons on spray showers in 400 playgrounds; estimated to save 1.5 million gallons of water a day; 150 spray showers installed to date
 - Replace bathroom fixtures in 500 city schools that will save 4 million gallons of water a day; 82 schools have been completed



Pipeline-Quality Biogas

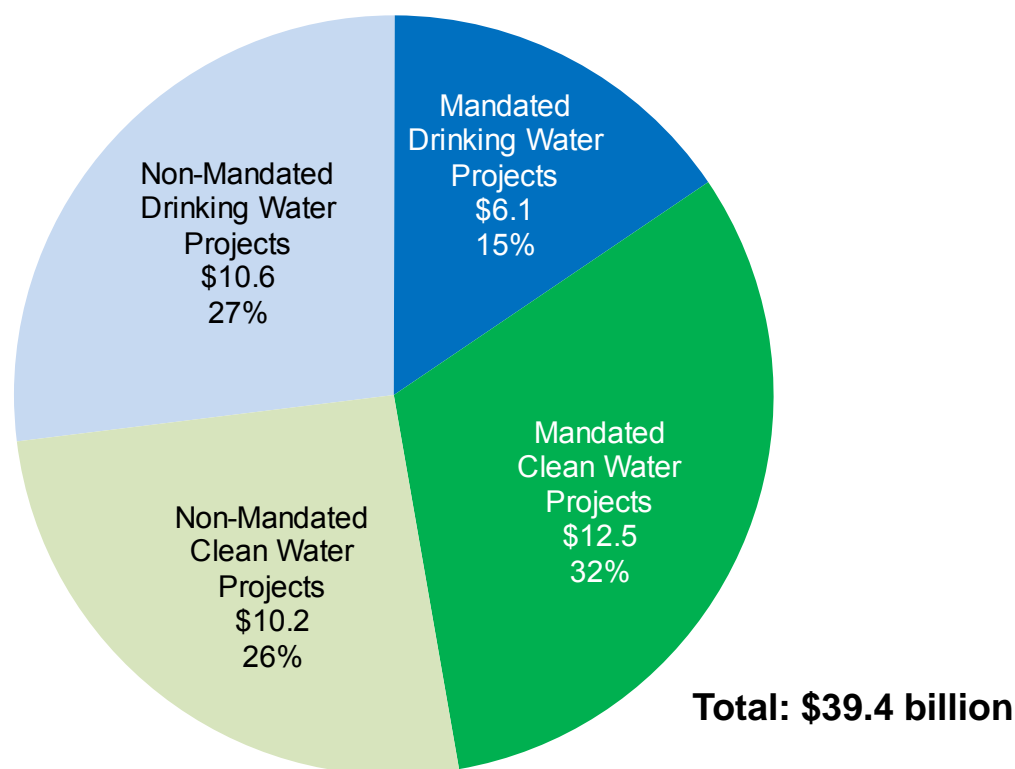
- Partnering with National Grid at Newtown Creek Wastewater Treatment Plant (WWTP) to convert solid waste into pipeline-quality natural gas for distribution
- Pre-processed organic waste will be combined with sludge to increase biogas production, and will increase beneficial reuse of biogas from 40% to 100%
- Will supply enough renewable gas to heat 5,200 homes
- Expected to reduce annual greenhouse gas emissions by 90,000 metric tons, the equivalent of removing 19,000 cars from the road
- Estimated completion in fall 2016



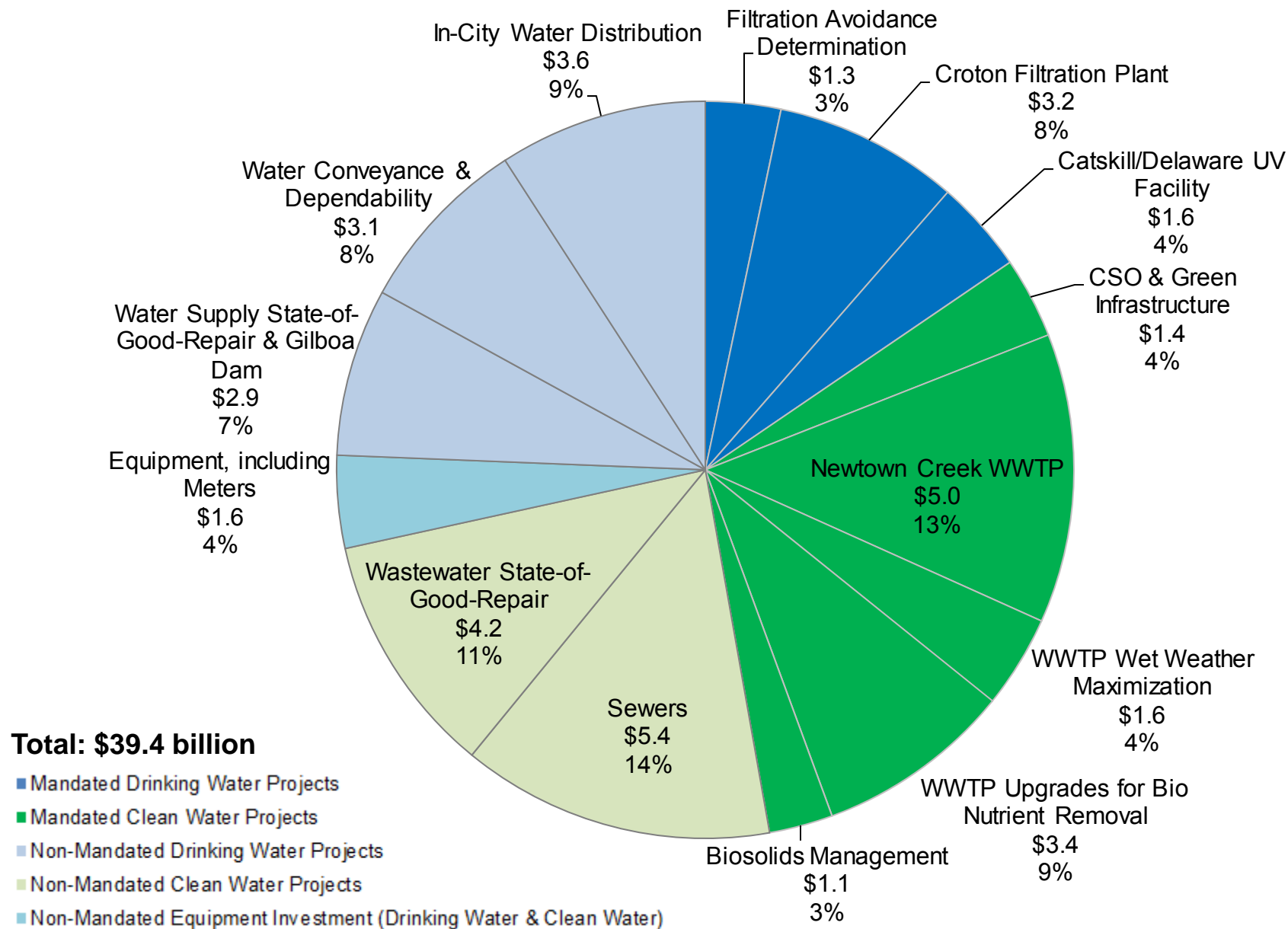
Newtown Creek Wastewater Treatment Plant Digester Eggs

Historical Capital Expenditures: 1985 to 2014

- From FY 1985 through FY 2014, DEP committed \$39.4 billion to capital projects
 - 42% (or \$16.7 billion) were for drinking water purposes, e.g., watershed protection, tunnels, and mains
 - 58% (or \$22.7 billion) were for clean water purposes, e.g., sewers and WWTP upgrades
- 47% (or \$18.6 billion) of projects were required by federal and state mandates



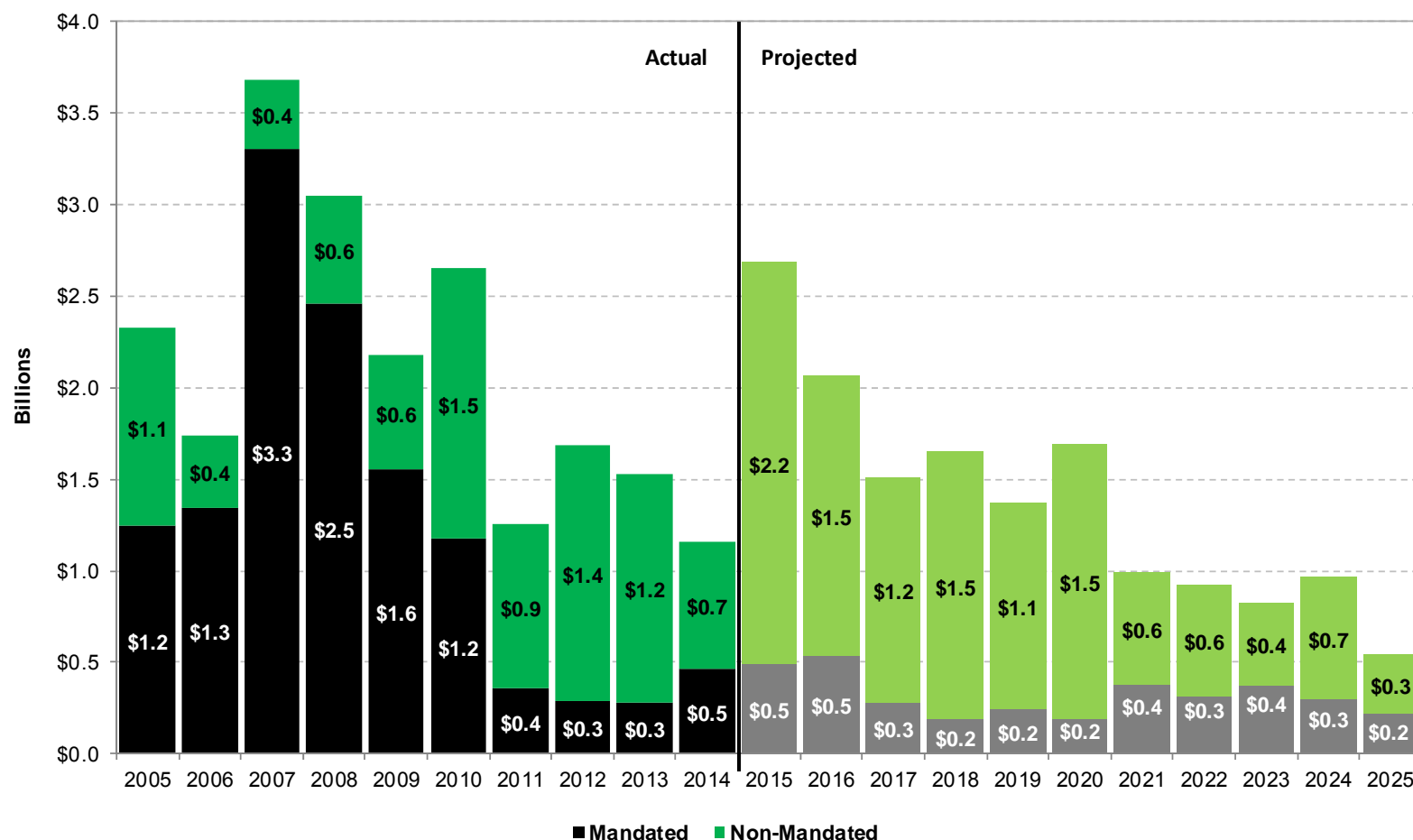
Historical Capital Expenditures: 1985 to 2014



Capital Outlook

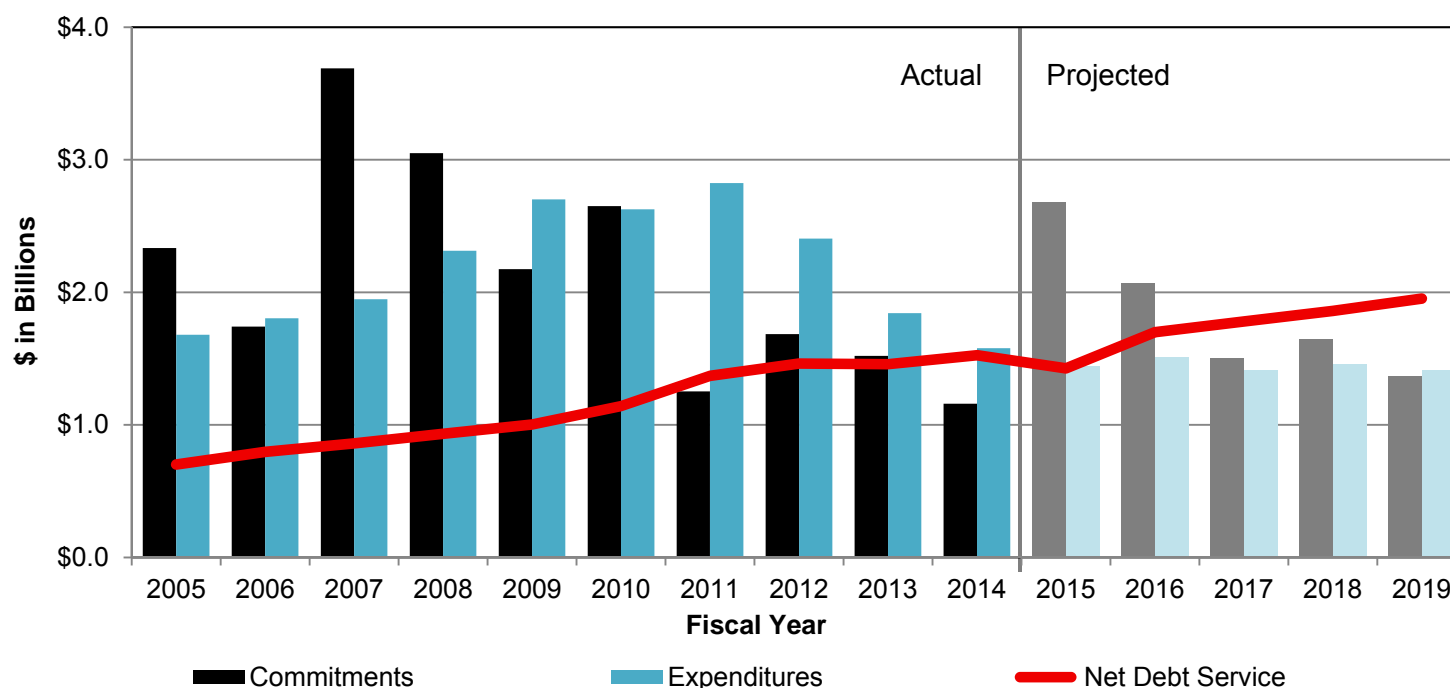
- For the past ten years, \$12.5 billion (59%) of capital commitments were mandated
- DEP has been successful working with regulators to moderate future mandates; as a result, the capital spending projections and required rate increases have fallen
- \$3.5 billion (23%) of FY 2015 to 2025 Capital Improvement Plan is mandated

Capital Commitments



Past Capital Costs, Current Debt Service

- DEP's capital commitments are tied to the System's debt service – capital commitments result in expenditures; and debt is issued as expenditures are incurred
- From FY 2005 to 2015, commitments will total \$23.9 billion, but, because of the lag effect, expenditures funded by debt issuance will total \$23.2 billion
- Annual debt service increased by 117% from FY 2005 to 2014, but the Authority has seized opportunities in the low interest rate environment to refinance and buyback \$9.5 billion of higher-cost debt in the past five years, achieving \$3.8 billion of savings over the life of the old debt



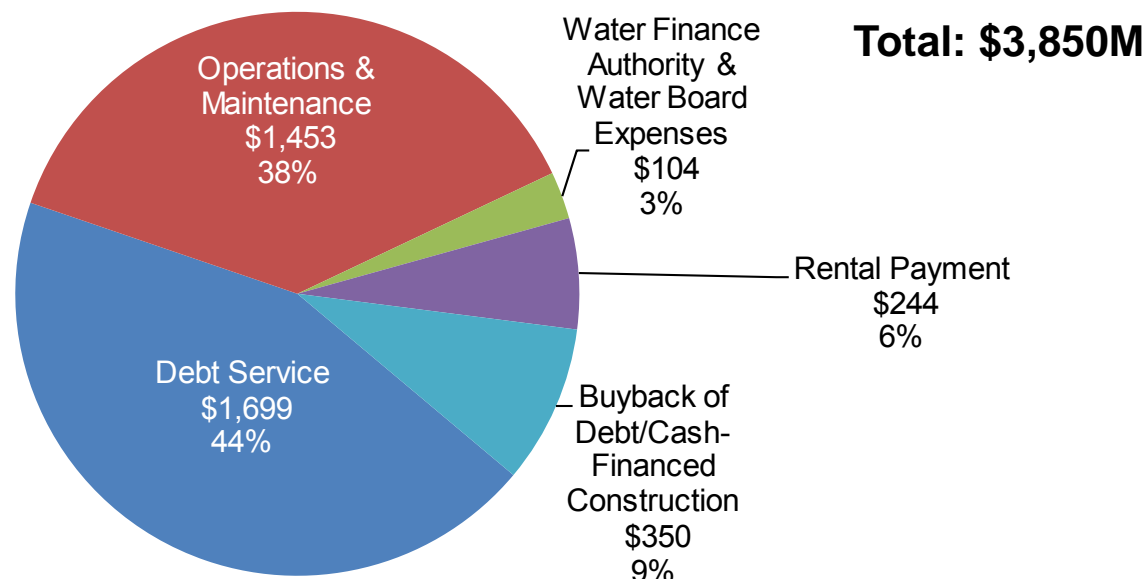
FY 2015 Forecast vs. Plan

- FY 2015 revenues are projected to be \$82 million ahead of plan
- FY 2014 financial results were ahead of plan by \$291 million, in part because of a one-time, \$83 million judgment the City won against Exxon Mobil
- Debt service is projected to be \$195 million less than plan due to low interest rates
- The Authority is using savings to buy back \$805 million of debt and achieve \$1.1 billion of savings (\$1.37 of savings for each \$1)
- The increase in available cash will be used to achieve the lowest rate increase in 10 years

Financial Outlook through 2015 (\$M)	FY 2015 Plan	FY 2015 Forecast	Change	% Change
Revenue	\$3,718	\$3,800	+\$82	+2%
Prior-year Carryforward	\$696	\$987	+\$291	+42%
Funds Available	\$4,414	\$4,787	+\$373	+8%
Debt Service	\$1,621	\$1,426	-\$195	-12%
Buyback of Debt	\$225	\$805	+\$580	+258%
Operations & Maintenance*	\$1,517	\$1,446	-\$71	-5%
Rental Payment	\$233	\$204	-\$29	-13%
Year-End Cash on Hand	\$818	\$906	+\$88	+11%

* Operations & Maintenance includes Water Finance Authority & Water Board Expenses and Indirect Expenses

Financial Outlook for FY 2016



Total System Costs (\$M)	FY 2015 Forecast	FY 2016	\$ Change	% Change
Debt Service	\$1,426	\$1,699	+\$273	+19%
Buyback of Debt or Cash-financed Capital Construction	\$805	\$350	-\$455	-57%
Operations & Maintenance (O&M)*	\$1,446	\$1,557	+\$111	+8%
Rental Payment	\$204	\$244	+\$40	+20%
Net Total System Costs	\$3,881	\$3,850	-\$31	-1%
Year-End Cash on Hand	\$906	\$921	+\$15	+2%
Total System Costs	\$4,787	\$4,771	-\$16	0%

* Operations & Maintenance is the sum of the chart's "Operations & Maintenance Expenses" and "Water Finance Authority & Water Board Expenses"

Proposed Rate Increase

Revenue Requirement (\$M)	FY 2015 Forecast	FY 2016
Total System Costs	\$4,787	\$4,771
Less: Prior-year Carryforward Revenue	\$987	\$906
Less: Upstate & Other Non-City Revenue	\$218	\$225
Revenue Need	\$3,582	\$3,640

Rate Calculation	FY 2016
Prior-year Revenue	\$3,582
Consumption Decrease & Other Non-Recurring Revenue	-\$56
Net Revenue at Prior Year's Rate	\$3,526
Revenue Need	\$3,640
Revenue Need Less Net Revenue at Prior Year's Rate	-\$114
Rate Increase Required	3.24%

Rental Payment Return

- The Water Board leases the water and sewer system from the City and pays the City an annual rental payment that is calculated at 15% of annual debt service
- From FY 2012 to FY 2014, the City implemented a Rental Payment Return pilot, which has returned \$31 million to the System over the last three years
- Last year, the City returned an additional 10% or \$21 million
- Starting in FY 2015, the City will return 20% of the Rental Payment, which is a return of \$41 million in FY 2016

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Gross Rental Payment	\$208	\$208	\$214	\$204	\$244
Returned Rental Payment (1-year Lag)	\$0	\$12	\$9	\$31	\$41
Net Rental Payment	\$208	\$196	\$205	\$173	\$204

HWAP: Home Water Assistance Program



- DEP introduced the Home Water Assistance Program (HWAP) in FY 2015
- A \$116 credit, equal to 25% of annual minimum charges, was given to recipients of the federally-administered Low Income Home Energy Assistance Program (HEAP)
- In FY 2016, the proposal is to expand this program to include an additional 46,500 senior or disabled customers based on prequalified lists maintained by the Department of Finance for property tax exemptions

Program	Recipient	Number of Recipients	Total Benefit
FY 2015	Low-income homeowners who qualify for HEAP	12,500	\$1.4 million
New in FY 2016	Seniors and Disabled*	46,500	\$5.4 million
Total FY 2016	Income-Qualified Recipients	59,000	\$6.8 million

- Providing HWAP to 59,000 customers in total will assist 7% of our customer base

* Income less than \$37,400; receive reduction in property taxes from Department of Finance
Subject to change based on updated information from DOF and further DEP review

Proposed FY 2016 Rate Schedule Changes



Minimum Charge

- Freeze minimum charge for 2nd consecutive year at FY 2014 rate of \$1.27 per day
- Customers who use less than approximately 100 gallons per day for a bill period receive a minimum bill
 - In FY 2014, DEP issued 594,400 bills at the minimum charge totaling approximately \$66.9 million
 - 26% of the bills issued to single-family homeowners were minimum bills
 - Freezing the minimum charge will benefit the customers who receive minimum bills by \$2.2 million (\$66.9 million x the 3.24% rate increase)
 - For FY 2015 and FY 2016 combined, this is \$4.3 million of savings for customers receiving minimum bills

Proposed FY 2016 Rate Schedule Changes



\$10 Credit for Enrolling in Monthly eBilling

- DEP will offer monthly billing as an option for all customers
- To incentivize customers to enroll in eBilling and defray DEP's costs of printing and mailing paper bills, customers enrolling in monthly eBilling will receive a one-time \$10 credit after delivery of their third consecutive monthly eBill

\$100 Credit for Participating in Lead and Copper Monitoring Program

- In FY 2012, the Water Board adopted a \$25 credit for registered participants upon successful completion of a lead and copper monitoring test
- The rate proposal would increase this credit to \$100 to increase participation

Proposed FY 2016 Rate Schedule

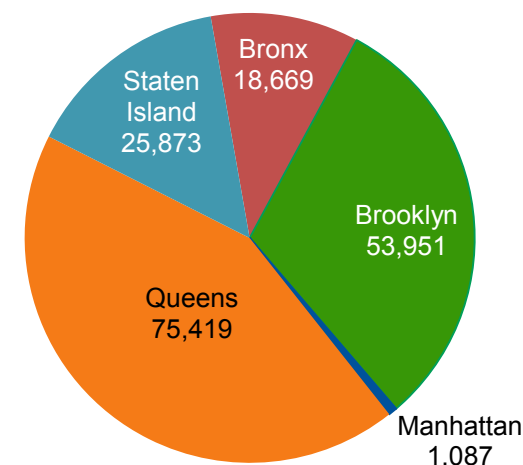
Service Line Protection Program (SLPP)

- Approximately 177,800 or 27% of eligible customers have enrolled in at least one of the Service Line Protection Programs to date

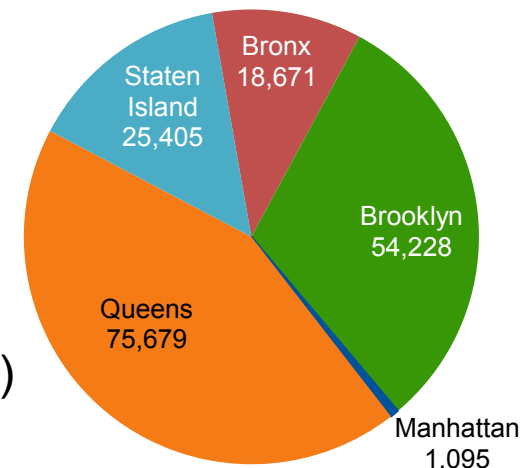
Borough	Total Eligible Customers	Enrolled in Water SLPP		Enrolled in Sewer SLPP	
		Number of Customers	% of Eligible	Number of Customers	% of Eligible
Bronx	64,148	18,669	29%	18,671	29%
Brooklyn	213,299	53,951	25%	54,228	25%
Manhattan	18,638	1,087	6%	1,095	6%
Queens	266,826	75,419	28%	75,679	28%
Staten Island	103,611	25,873	25%	25,405	25%
Citywide Total	666,522	174,999	26%	175,078	26%
Single Program		2,701		2,780	
Both Programs		172,298		172,298	

- FY 2016 Proposed Fees:
 - \$4.49/month or \$53.88/year for Water SLPP (no change)
 - \$8.47/month or \$101.64/year for Sewer SLPP (no change)

Water SLPP

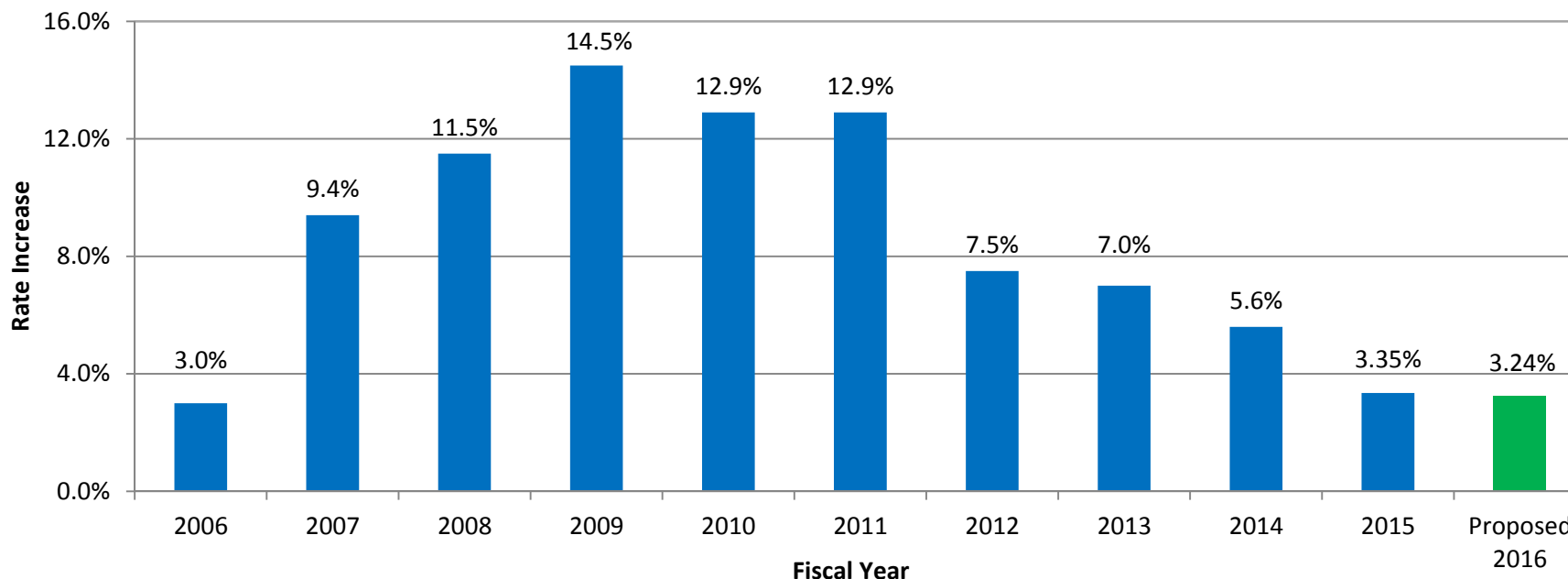


Sewer SLPP



FY 2016 Rate Proposal Recap

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Borough Rate Hearing Schedule



Borough	Date	Location	Time
Staten Island	April 27	Joan and Alan Bernikow JCC 1466 Manor Road	7:30 pm
Brooklyn	April 28	St. Francis College 180 Remsen Street, Founders Hall	7:00 pm
Bronx	April 29	Hostos Community College Savoy Building, 2 nd Floor 120 East 149 th Street	7:00 pm
Queens	April 30	LaGuardia Community College 45-50 Van Dam Street Conference Room E-149	7:00 pm
Manhattan	May 1	NYC Department of City Planning 22 Reade Street, Spector Hall	1:30 pm