

# NEW YORK CITY WATER AND WASTEWATER RATE REPORT – FY 2019

MAY 2018

NEW YORK CITY  
WATER  
BOARD



Steel liners for the Delaware Aqueduct Bypass Tunnel  
(each liner is 16' in diameter and 40' long)

The New York City Water Board (the “Board”) has prepared this information booklet to inform the public on its rate proposals for Fiscal Year 2019 (“FY 2019”) 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 by more than one million residents. To accommodate this growth, uphold the high quality and integrity of the City’s drinking water, and ensure the long term viability of the System, the 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 4% 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:

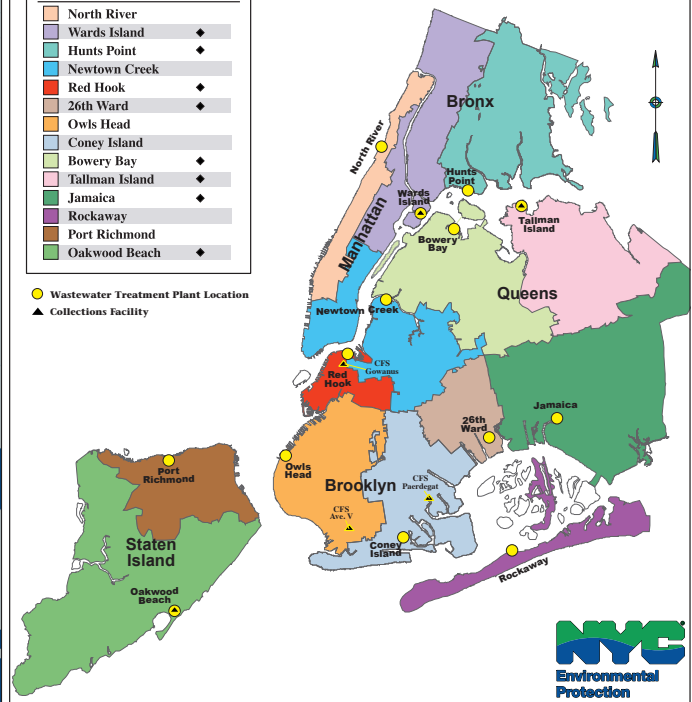
- Alfonso L. Carney, Jr., Chair
- Tawan Davis
- Evelyn Fernandez-Ketcham
- Adam Freed
- Jonathan E. Goldin
- Jukay Hsu
- Arlene M. Shaw



## 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



## WATER BOARD RATE ADOPTION PROCESS

- Rates that will satisfy the revenue requirements of the System and policies that will advance the Board's mission are presented to the Board.
- The New York City Municipal Water Finance Authority projects debt service on bonds issued to finance water and wastewater capital projects and certifies the annual debt service to the Board.
- The City Office of Management and Budget projects the System's operating and maintenance expenses and certifies the annual amount to the Board based on the Mayor's Executive Budget.
- The System's consulting engineer certifies that the annual expenses and capital investment are reasonable and appropriate to maintain the viability of the System.
- The Board holds a public hearing in each borough of the City. (See schedule below.)
- At its Annual Meeting on June 1st, 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>APRIL 27</b>	Rate Proposal to Water Board
<b>MAY 21-22, 29-31</b>	In-City Public Hearings
<b>JUNE 1</b>	Water Board Meeting to Adopt FY 2019 Budget and in-City 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>Brooklyn</b>	St. Francis College Founders Hall 180 Remsen Street Brooklyn, NY 11201	Monday, May 21, 2018 Doors open at 6:30 p.m. Public Hearing at 7:00 p.m.
<b>Queens</b>	John F. Kennedy, Jr. School (P721Q) 57-12 94th Street Elmhurst, NY 11373	Tuesday, May 22, 2018 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	Tuesday, May 29, 2018 Doors open at 6:30 p.m. Public Hearing at 7:00 p.m.
<b>Staten Island</b>	Joan & Alan Bernikow Jewish Community Center 1466 Manor Road Staten Island, NY 10314	Wednesday, May 30, 2018 Doors open at 6:30 p.m. Public Hearing at 7:00 p.m.
<b>Manhattan</b>	Spector Hall 22 Reade Street New York, NY 10007	Thursday, May 31, 2018 Doors open at 9:30 a.m. Public Hearing at 10:00 a.m.



## FY 2019 RATE PROPOSAL

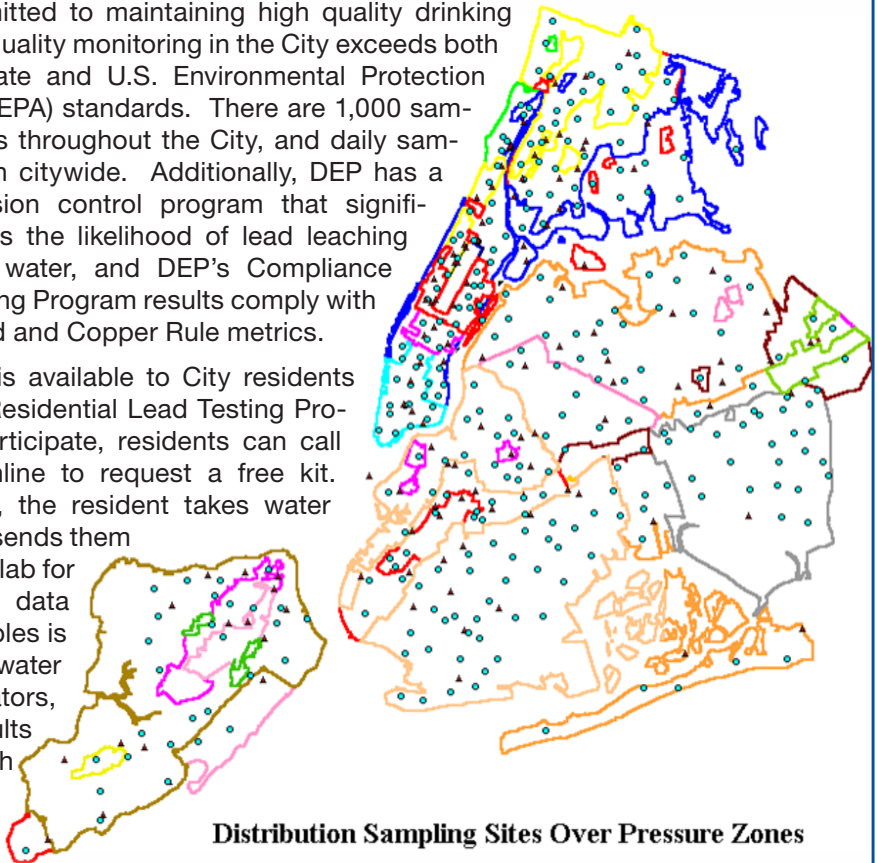
- ▶ **Increase in-City water rates by 2.36%.**
- ▶ **Minimum Charge:** Freeze the minimum charge for meter-billed customers for the fifth consecutive year at the FY 2014 rate of \$0.49 per day for water service, plus the wastewater charge of 159% of water charges.
- ▶ **Multi-family Water Assistance Program:** Modify the ranking formula for determining program participation to rank eligible applicants from lowest-to-highest median income, with priority given to the lowest.
- ▶ **Letter of Authorization:** Letters of Authorization will be valid for two years unless otherwise specified by the customer, which will reduce the paperwork burden on customers and their advisors.
- ▶ **Title Read Policy:** Clarify existing Title Read Policy and procedure and extend the time in which a customer may request a title read from 30 days prior to a property transfer to 60 days.



### WATER QUALITY

DEP is committed to maintaining high quality drinking water. Water quality monitoring in the City exceeds both New York State and U.S. Environmental Protection Agency (U.S. EPA) standards. There are 1,000 sampling locations throughout the City, and daily samples are taken citywide. Additionally, DEP has a robust corrosion control program that significantly reduces the likelihood of lead leaching into drinking water, and DEP's Compliance Lead Monitoring Program results comply with U.S. EPA Lead and Copper Rule metrics.

Lead testing is available to City residents via the Free Residential Lead Testing Program. To participate, residents can call 311 or go online to request a free kit. Using the kit, the resident takes water samples and sends them directly to the lab for testing. The data from the samples is submitted to water quality regulators, and the results are shared with the resident.



Distribution Sampling Sites Over Pressure Zones

To request a free kit, call 311 or visit [nyc.gov](http://nyc.gov).

## FY 2019 EXPENDITURES

In the coming fiscal year, operations and maintenance expenses for this vast system will be \$1.5 billion, which is 39% of the System's budget. These operational costs include all expenses to ensure and protect the City's water supply, treat and distribute drinking water to over nine million customers each day, and treat over 1.2 billion gallons of wastewater per day. The operations of the System are significant, including 6,000 employees, property taxes on upstate watershed land, energy costs,

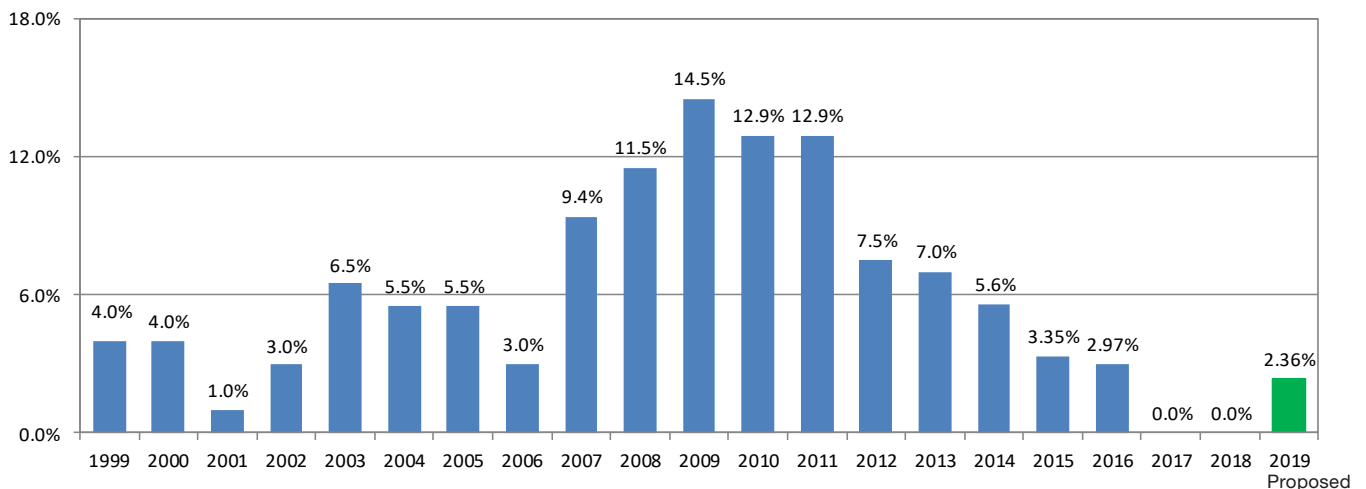
chemicals, and various contracts for items such as maintenance and specialized services. DEP continues to implement improvements to deliver the best water possible to New Yorkers.

In FY 2019, the largest driver of the System's annual budget will be its debt service and capital investment, accounting for \$2.2 billion or 58% of the total revenue needed in FY 2019. This debt service is a direct result of DEP's sizable capital construction

### TYPICAL NEW YORK CITY CHARGES (FY 2019 WITH PROPOSED 2.36% RATE INCREASE)

	FY 2018	FY 2019	Change
<b>Metered Rates</b>			
Water (per 100 cubic feet)	\$3.81	\$3.90	\$0.09
Wastewater (per 100 cubic feet)	\$6.06	\$6.20	\$0.14
Combined Water & Wastewater (per 100 cubic feet)	\$9.87	\$10.10	\$0.23
Combined Water & Wastewater (per gallon)	\$0.0132	\$0.0135	\$0.0003
<b>Typical Metered Charges, Average Annual Charges</b>			
Single-family (80,000 gallons per year)	\$1,055.39	\$1,080.30	\$24.91
Multi-family Metered (52,000 gallons per year)	\$686.00	\$702.19	\$16.19
Minimum Charge (~95 gallons per day or 34,400 gallons per year)	\$463.55	\$463.55	\$0.00
<b>Annual Multi-family Conservation Program (MCP) Charge</b>			
Per Residential Unit	\$1,004.82	\$1,028.53	\$23.71

### WATER AND SEWER RATE HISTORY (PERCENT CHANGE)

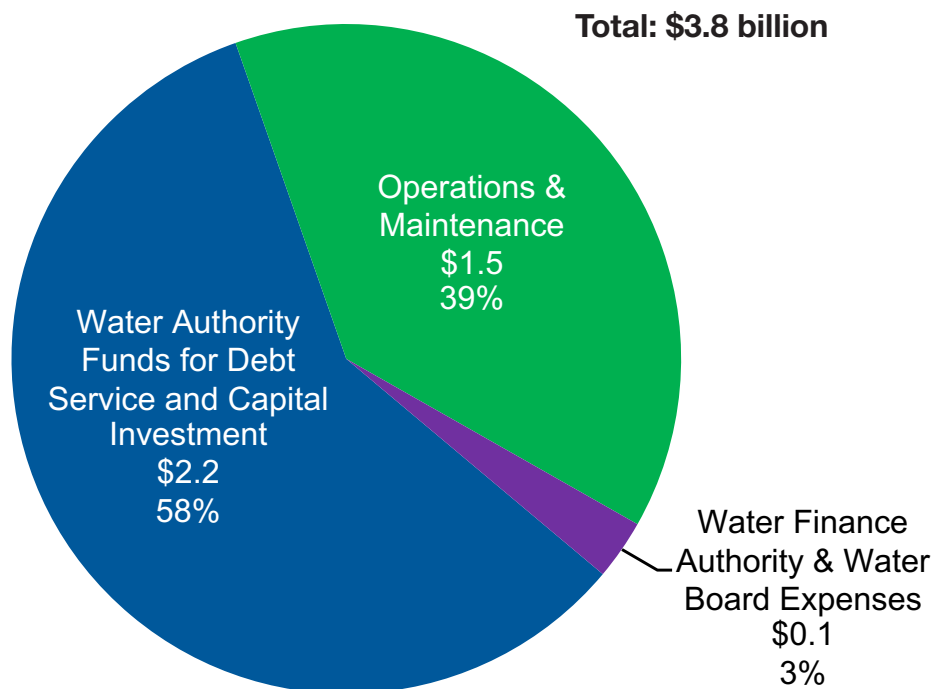


projects, which have been largely driven by unfunded mandates required by state and federal regulators. From FY 2008 to FY 2017, DEP committed \$19.7 billion to its capital program, and 40% of these capital commitments were directed for mandated projects, such as the Croton Water Filtration Plant, Catskill/Delaware UV Disinfection Facility, and Newtown Creek Wastewater Treatment Plant. 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. As a result, the New York City Municipal Water Finance Authority's total outstanding debt is currently \$31.0 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.

While New York City's water and wastewater system is well-maintained, and each year receives a positive grade from the system's consulting engineers. In order to appropriately maintain the system, significant ongoing investments will be made in system assets.



**FY 2019 EXPENDITURES**





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## DEP INFRASTRUCTURE INVESTMENT OVERVIEW

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From FY 2008 to FY 2017, DEP committed \$19.7 billion to its capital program, and the current Capital Improvement Plan for FY 2018 to FY 2027 is \$19.1 billion with \$2.1 billion for FY 2018. These investments have secured the City's System today and will benefit additional New Yorkers for generations to come.

DEP will continue to invest in the City's water and wastewater infrastructure, with additional multi-phase, long-term projects, such as the Green Infrastructure program, rehabilitation of the City's WWTPs, and the planning, design, and construction of permanent repairs to the Delaware Aqueduct. Ongoing projects, such as upstate land acquisition, energy and energy efficiency projects systemwide, and maintaining infrastructure throughout the watershed to support the FAD will continue to enhance the City's System.

The following paragraphs summarize some of the programmatic areas for capital investment as noted in the approved FY 2019 Executive Capital Improvement Plan.

### WATER SUPPLY

#### \$1.4 billion for Kensico-Eastview Connection

In order to create redundancy in the water supply system, DEP is constructing a second tunnel to connect the Kensico Reservoir to the Catskill/Delaware ultraviolet treatment facility. The UV Facility provides secondary UV disinfection to protect against *Cryptosporidium* and *Giardia*.

#### Completion of Delaware Aqueduct Repair

DEP is currently implementing a program to repair a leak in a section of the Delaware Aqueduct in Roseton that is 800 feet below the Hudson River. Mining of the bypass tunnel began in November 2017. Construction of the shafts for the bypass tunnel is complete; and the project will culminate with the connection of the bypass tunnel in 2022. Since DEP must shut down the Aqueduct when we are ready to connect the bypass tunnel, DEP is also implementing conservation measures and providing supplemental sources of water during the shutdown.



The most significant of these projects will increase the capacity of the Catskill Aqueduct by an additional 50 million gallons per day.

### **\$660 million for City Water Tunnel No. 3**

The Manhattan Section of City Water Tunnel No. 3 was activated in October 2013 to provide redundancy for the older Water Tunnels No. 1 and 2 in Manhattan. The Brooklyn/Queens section is currently activation ready in the unlikely event it is needed as an emergency backup in the event of a major disruption in water delivery from Tunnels 1 or 2. The remaining work on the project includes the construction of two new shafts in Queens and is expected to be completed in the mid-2020s.

## **WASTEWATER MANAGEMENT AND TREATMENT**

### **\$1.9 billion for Combined Sewer Overflow (CSO) Long-term Control Plans (LTCPs)**

These funds in the current 10-year capital program 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 the NYSDEC, DEP is required to submit LTCPs for CSOs in ten waterbodies, the East River, and open citywide waters. Currently, seven LTCPs have been approved by NYSDEC. 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. 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 rain gardens and green roofs), the City's waterways will continue to improve.

### **\$1.7 billion for Southeast Queens Water and Sewer Infrastructure**

Flooding has long been a concern in Southeast Queens and increasing rainfall, loss of permeable surfaces, and reduced groundwater use have only worsened the problem. DEP has developed a four-pronged program to improve flooding conditions: construct quick fixes to bring near-term flooding relief, build neighborhood sewer projects, invest in

large trunk sewers to create future capacity, and evaluate opportunities to reduce groundwater flooding. Over the next 10 years, DEP plans to begin full sewer buildout, which will require approximately 450 miles of new storm sewers and upgrades to 260 miles of sanitary sewers and 30 miles of combined sewers. In order to relieve local flooding, DEP will build Green Infrastructure to capture stormwater before it gets to the storm sewer system. DEP will also accelerate the planning and design of large trunk sewers, which transport stormwater to Jamaica Bay; build collection storm sewers in the hardest hit areas; and partner with community groups to educate residents about steps they can take to protect their properties during rain events.

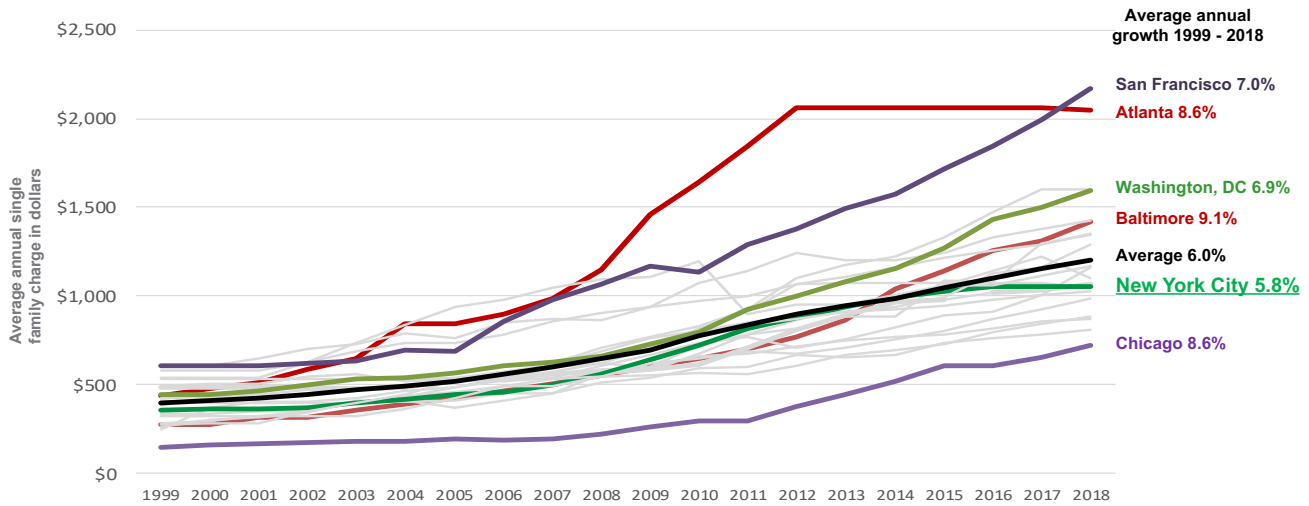
### **\$988 million for Green Infrastructure Projects**

One way to reduce CSOs is through Green Infrastructure. To date, DEP has committed \$480 million to Green Infrastructure projects, and over 4,000 Green Infrastructure assets have been built. This has reduced CSO volume by about 200 million gallons per year. Future Green Infrastructure projects will improve water quality in the Bronx River, Alley Creek, the Hutchinson River, and Flushing Creek. Additionally, two storage tanks will reduce CSOs into the Gowanus Canal.

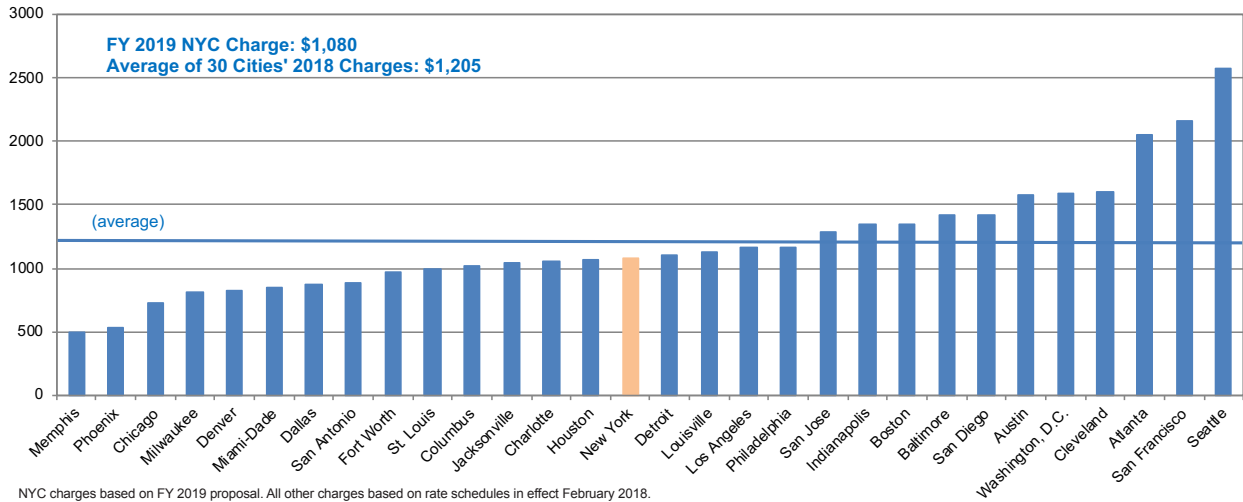




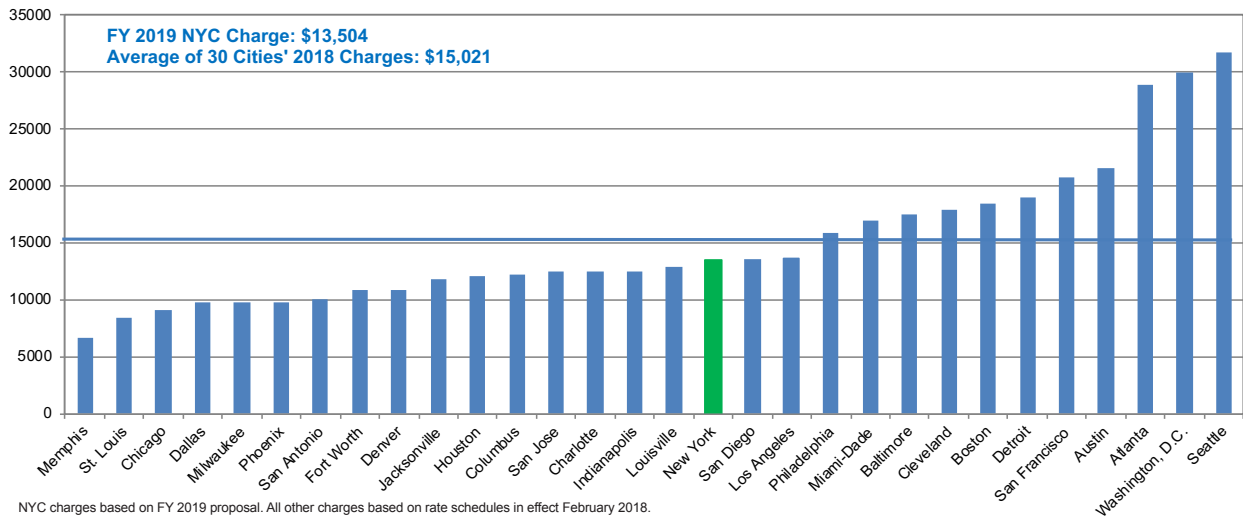
## ANNUAL RESIDENTIAL WATER/WASTEWATER CHARGES - RATE INCREASES OF VARIOUS CITIES OVER TIME



## ANNUAL RESIDENTIAL WATER/WASTEWATER CHARGES



## ANNUAL COMMERCIAL WATER/WASTEWATER CHARGES

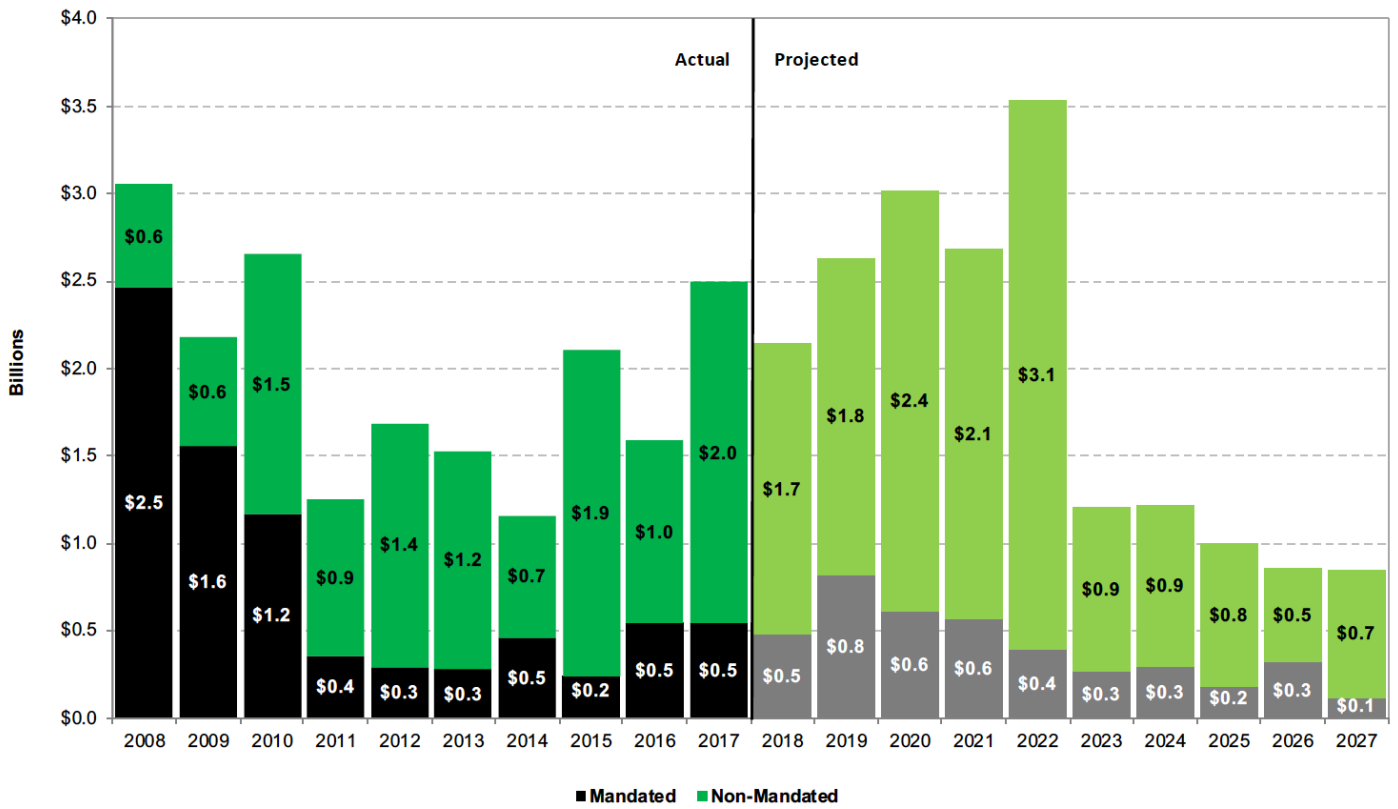


## ANTICIPATED SYSTEM FINANCIALS FOR DEBT COVERAGE (\$ MILLIONS)

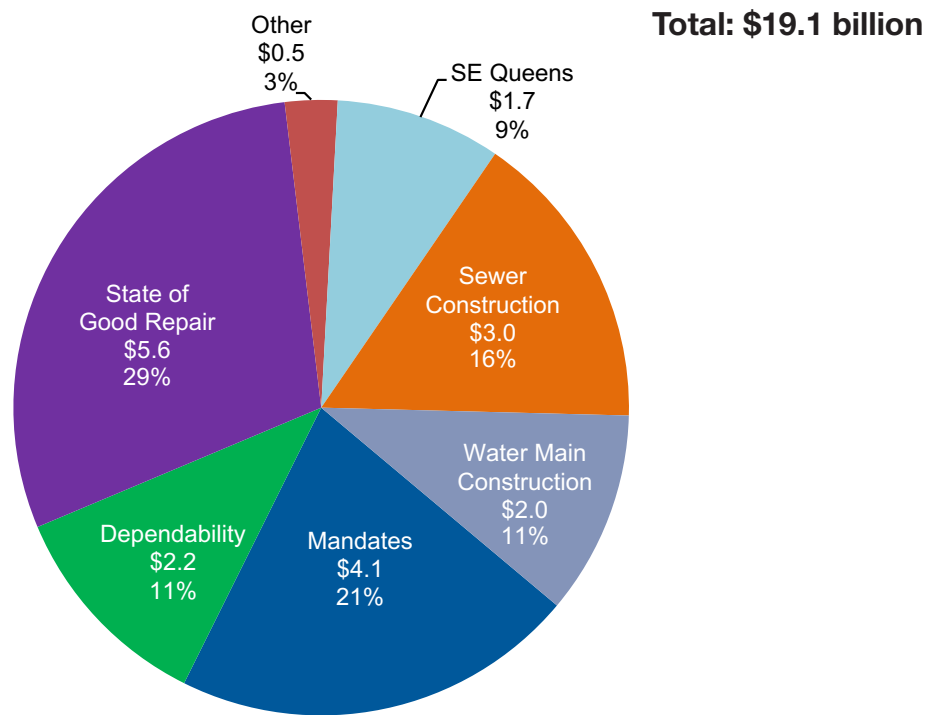
	FY 2018	FY 2019	Change
<b>REVENUES</b>			
<b>Operating Revenues</b>			
Water and Sewer User Payments	3,550	3,673	124
Upstate Revenue	82	86	4
Miscellaneous Revenue	17	18	1
<b>Other Revenues</b>			
Interest on Funds	20	23	3
Federal Subsidy on Outstanding Build America Bonds	70	70	0
<b>Current Revenues Available for Debt Service</b>	<b>3,738</b>	<b>3,870</b>	<b>131</b>
<b>EXPENSES</b>			
<b>First Resolution Authority Debt Service</b>			
Outstanding Bonds	71	133	61
Anticipated Future Bonds		7	7
<b>Total First Resolution Debt Service</b>	<b>71</b>	<b>139</b>	<b>68</b>
<b>Debt Service on Subordinated Indebtedness</b>			
Outstanding Second Resolution Bonds	1,062	1,132	70
Anticipated Future Second Resolution Bonds	13	82	69
Interest Payments on Commercial Paper Notes	0	17	17
Outstanding Second Resolution Bonds to EFC	547	552	6
Anticipated Future Second Resolution EFC Bonds	0	9	9
Less: EFC Subsidy and Capitalized Interest	-100	-106	-6
Debt Service on Subordinated Indebtedness	1,521	1,685	165
Less: Carryforward Revenues	-1,212	-1,025	187
Net Debt Service on Subordinated Indebtedness	309	660	352
<b>Total Debt Service Payable from Current Revenues</b>	<b>380</b>	<b>800</b>	<b>420</b>
<b>Operating Expenses</b>			
Water Authority	53	56	3
Water Board	50	51	1
DEP Operating and Maintenance	1,403	1,467	64
Other Expenses	18	18	0
<b>Total Operating Expenses</b>	<b>1,524</b>	<b>1,592</b>	<b>68</b>
Deposits to O&M Reserve Fund	0	2	2
Defeasance/Cash Financed Capital Construction	825	525	-300
<b>Total Expenses</b>	<b>2,349</b>	<b>2,120</b>	<b>-230</b>
Cash Released from Escrow	-17	-17	0
<b>Net Year-end Balance</b>	<b>1,025</b>	<b>967</b>	<b>-59</b>
First Resolution Debt Service Coverage	52.3x	27.8x	
First and Second Resolution Debt Service Coverage	9.7x	4.8x	

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

**CAPITAL COMMITMENTS - DEP CONTINUES TO INVEST IN INFRASTRUCTURE**



**CAPITAL IMPROVEMENT PLAN: FY 2018-FY 2027 INVESTMENT ALLOCATION (IN BILLIONS)**

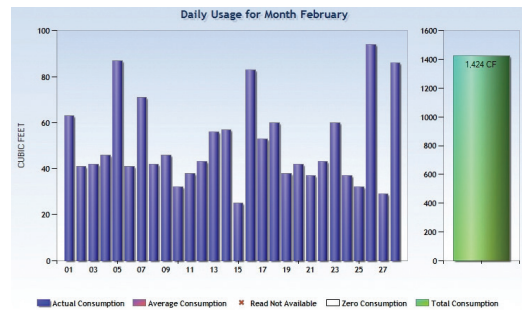




# CUSTOMER SERVICE ONLINE TRACKING SYSTEM

## TRACK YOUR WATER USE

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



## SIGN UP FOR LEAK NOTIFICATION

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

The Leak Notification Program enables you to be alerted to potential water leaks on your property. Sign up online to receive email notifications when your water use increases significantly over a period of several days, enabling you to quickly respond to potential leaks and fix them before they become a serious billing problem. Since 2011, 288,800 customers have enrolled in the Leak Notification Program and been able to save more than \$138 million in leak-related charges.

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

You can sign up to receive monthly water and sewer bills. Not only will monthly bills help you notice leaks sooner and make budgeting easier, **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!** By signing up to receive your bills online, you'll save time and help improve our environment by reducing paper consumption. Instead of a paper bill, you'll receive an email notification when your next bill is due. You can then log in to My DEP Account to see an electronic copy of your bill.

*Enroll  
online*

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

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

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**NYC** Environmental  
Protection