

COMPREHENSIVE ANNUAL FINANCIAL REPORT

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FOR THE FISCAL YEAR ENDED JUNE 30, 2015



**NEW YORK CITY  
WATER  
AND SEWER  
SYSTEM**

A COMPONENT UNIT OF THE CITY OF NEW YORK



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# LETTER OF TRANSMITTAL

**DECEMBER 17, 2015**

**MEMBERS OF THE BOARD OF THE NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY  
MEMBERS OF THE NEW YORK CITY WATER BOARD  
THE COMMISSIONER OF THE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION**

We are pleased to submit to you this Comprehensive Annual Financial Report (“CAFR”) of the New York City Water and Sewer System (the “System”) for the fiscal year ended June 30, 2015. The financial section of this CAFR includes management’s discussion and analysis, the general-purpose financial statements, and the combining financial statements and schedules, as well as the independent auditors’ report on these financial statements, and schedules.

The System is responsible for the accuracy, completeness, and fairness of the presentation, including all disclosures. The management’s discussion and analysis provide an overview of the System’s financial results.

The reporting entity consists of two separate and independent corporate bodies that are combined for reporting purposes: the New York City Municipal Water Finance Authority (the “Authority”) and the New York City Water Board (the “Water Board”). In addition, the New York City Department of Environmental Protection (“DEP”) operates the System. The passage of the New York City Municipal Finance Authority Act of 1984 (the “Act”) by the New York State Legislature authorized this financing and operating relationship. The System is a component unit of The City of New York (“The City”) for financial reporting purposes.

The Authority is authorized to issue bonds and other debt instruments for construction of and improvements to the System. The Authority also has the power to refund its bonds, notes, and the general obligation bonds of The City issued for water or sewer purposes. The Authority is administered by a Board of Directors composed of seven members, four of whom serve ex-officio, two of whom are appointed by the Mayor of The City, and one of whom is appointed by the Governor of the State of New York (the “State”). The staff of the Authority operates under the direction of an Executive Director.

The Water Board leases the System from The City, sets rates, and collects the System’s revenue. The Lease Agreement dated July 1, 1985 (the “Lease”), provides for a lease term until all the bonds of the Authority are paid in full or provision for payment has been made. The Water Board is obligated to first allocate the revenues of the System to debt service on Authority bonds and to the Authority’s expense budget, after which revenues are allocated to the Water Board’s expenses, DEP’s cost of operating and maintaining the System, and to the rental payment paid to The City under the terms of the Lease. The Lease requires the Water Board to make the rental payment to The City which is no more than the greater of: i) principal and interest for the fiscal year

on City general obligation bonds issued for water and sewer purposes or ii) fifteen percent of principal and interest on Authority debt for the fiscal year. The Water Board consists of seven members who are appointed by the Mayor. The Act requires that at least one member have experience in the science of water resource development. Members of the Water Board cannot be members of the Board of Directors of the Authority. The Mayor appoints the Chairman. The staff of DEP supports the operations of the Water Board under the direction of the Water Board's Executive Director.

The operation and maintenance of the water and sewer system is performed by DEP. DEP is managed by a Commissioner who is appointed by the Mayor and oversees a workforce of over 5,500 people. DEP works to protect the environmental welfare and health of The City's residents and natural resources, manages The City's water supply, treatment, transmission, and distribution system, and collects, treats, and disposes of waste and storm water. DEP supplies water and sewer service to the Boroughs of the Bronx, Brooklyn, Manhattan, Queens, and Staten Island, an area of over 300 square miles, and serves over 8.5 million people. The City is also required by state law to sell water in counties where its water supply facilities are located. The System currently provides water to approximately one million people located in Westchester, Putnam, Orange, and Ulster Counties.

The System provides an average of approximately one billion gallons of water per day. DEP maintains a system of dams, reservoirs, aqueducts, and water tunnels in addition to approximately 6,700 miles of water mains. DEP also maintains approximately 7,500 miles of sewers that collect and transport waste and storm water for treatment at DEP's 14 wastewater treatment plants. Additionally, DEP operates four major combined sewer overflow retention facilities, wastewater pump stations, laboratories, sludge dewatering facilities, and inner-harbor vessels which transport sludge between facilities. DEP collects and treats an average of approximately 1.3 billion gallons of sewage per day. Sewer service is provided to virtually the entire City, except for parts of the Borough of Staten Island and the Borough of Queens community of Breezy Point. Sewer service is also provided to certain upstate communities in the System's watershed areas.

## **CREDIT RATINGS**

The Authority's bonds continue to be highly rated by all three rating agencies. The Authority's ratings reflect the credit strengths resulting from the strong legal protections provided to bondholders and structural features which provide a gross pledge of System revenue to bondholders for debt payments. In November 2015, Moody's Investors Service upgraded the Authority's second general resolution debt to Aa1 from Aa2. Moody's also rates the Authority's first (general) resolution debt Aa1. Standard and Poor's Ratings Services rates the Authority's first resolution debt AAA, their highest rating. The Authority's second general resolution debt is rated AA+ by Standard and Poor's. Fitch Ratings rates both the Authority's first and second general resolution debt AA+.

New York State Environmental Facilities Corporation ("EFC") Clean Water and Drinking Water Revolving Funds Revenue Bonds issued for eligible projects are rated AAA from all three rating agencies. EFC's subordinated state revolving fund bonds are rated AAA by Standard & Poor's, AAA by Moody's, and AA+ by Fitch. The Bonds that the Authority places with EFC are an element of security for EFC's bonds, but are unrated second general resolution bonds of the Authority.

## **INTERNAL CONTROLS**

The managements of the Water Board and the Authority are responsible for establishing and maintaining an internal control structure designed to provide reasonable, but not absolute, assurance that the assets of the System are protected from loss, theft, or misuse, and that accounting policies are complied with and the preparation of financial statements conform with accounting principles generally accepted in the United States of America. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements. Internal control cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control involves human diligence and compliance; it is subject to human failures and may be circumvented. Because of such limitations, the Authority and the Water Board have designed into the process safeguards to reduce, though not eliminate, this risk.

The System is subject to the internal control directives and memorandums that originate from the New York City Comptroller's Office. These directives establish

internal controls and accountability which safeguard City assets. In addition, DEP is subject to audit by the City Comptroller's Office, whose auditors periodically audit The City's agencies' adherence to internal control policies and procedures.

### **BUDGETARY CONTROLS**

The Water Board and the Authority maintain separate control structures for their specific areas of responsibility. The Water Board and the Authority establish separate operating budgets approved by their respective Boards.

### **CAPITAL PROGRAM GOALS**

The goals of the System's capital program are,

- to maintain the quality of the water in The City's watersheds and, where necessary, treat the supply to ensure its high quality and compliance with federal and state water quality standards;
- to maintain and improve the transmission and distribution capacity and the condition of The City's water supply system;
- to improve the quality of the surrounding waters by upgrading The City's wastewater treatment, facilities, by complying with federal and state standards for treatment and by reducing pollution caused by combined sewer overflows; and
- to maintain and improve the condition of the sewer system, prevent flooding by replacing failing sewers, and extend service to underserved areas of The City.

DEP's capital and operation and maintenance budgets are appropriated through the City's annual capital and operating budgets, respectively. The City also maintains an encumbrance accounting system as another technique of accomplishing budgetary control. The Authority and the Water Board adopt their budgets conterminously with The City's operating budget cycle.

### **CAPITAL IMPROVEMENT PROGRAM AND FINANCING PROGRAM**

The City updates its Ten Year Capital Strategy (the "Strategy") every two years. The City released the Strategy in May 2015. The Strategy included the projected capital improvements to the System for fiscal years 2015 through 2025. The City's current capital

plan, which covers fiscal years 2016 through 2019, was updated in September 2015. It is updated three times each fiscal year and the September 2015 release supersedes the Strategy for fiscal years 2016 through 2019. The Strategy, together with the current capital plan, comprises the capital improvement program ("CIP").

The CIP is designed to maintain a satisfactory level of service and improve the operation of the System. The CIP establishes long-range programmatic goals for the System and reflects a review of the present condition and long-term needs of the plants and equipment constituting the System. The CIP also incorporates the System's requirements for meeting legal mandates, the present replacement cycle for System facilities, extensions to the present service area, and programs to enhance and optimize the operation and dependability of the System. Additionally, in October 2013, DEP released its "NYC Wastewater Resiliency Plan" which sets forth specific strategies to protect and strengthen wastewater treatment plants and pumping stations from the effects of climate change. In April 2015, The City released "One New York", a long-term plan which updates the prior "PlaNYC" to address The City's goals of resiliency, sustainability, equity, and growth for The City and incorporates proposals related to resiliency of the System in relation to climate change. Approximately \$4.8 billion of funding is included in the CIP for such improvements identified in the plan. Allowances are also included in the CIP for emergency repair and replacement and for cost escalations due to inflation. The total capital commitments projected to be provided from System funds is \$14.9 billion for fiscal years 2016 through 2025. The capital commitments shown in each year represent capital contracts authorized to be entered into each year that will be paid from City funds and reimbursed by the Authority, largely from bond proceeds. Actual expenditures from such capital contracts and the issuance of Authority bonds to fund such expenditures occur in the current and subsequent years. The following table reflects the CIP as of September 2015. For a number of reasons, including unforeseen cost inflation and changes in plans, actual costs may vary from the CIP set forth in the table. The CIP is divided into five project types, each discussed on the next page.

## CAPITAL IMPROVEMENT PROGRAM

(in thousands):

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
Water Supply and Transmission	\$24,136	\$68,273	\$74,328	\$274,972	\$99,000	\$369,000	\$50,000	\$30,000	\$143,000	\$20,000	\$1,152,889
Water Distribution	539,202	630,770	698,569	343,228	302,352	204,850	199,582	126,758	238,432	119,507	3,403,250
Water Pollution Control	679,921	605,477	733,745	696,335	925,925	265,919	492,838	506,262	412,368	257,444	5,576,234
Sewers	574,598	695,637	537,302	466,350	434,225	232,482	335,528	245,126	237,052	497,034	4,255,334
Equipment	103,706	59,462	91,702	48,357	40,053	46,074	46,010	37,409	18,125	19,500	510,398
<b>Total City Funds</b>	<b>\$1,921,743</b>	<b>\$2,059,619</b>	<b>\$2,135,646</b>	<b>\$1,829,242</b>	<b>\$1,801,555</b>	<b>\$1,118,325</b>	<b>\$1,123,958</b>	<b>\$945,555</b>	<b>\$1,048,977</b>	<b>\$913,485</b>	<b>\$14,898,105</b>

### WATER SUPPLY & TRANSMISSION

This component of the CIP includes approximately \$440.7 million for Stages I and II of The City's Water Tunnel No. 3. Water Tunnel No. 3 will augment the transmission capacity from the watersheds into The City, permit the inspection and rehabilitation of Tunnels No. 1 and 2, and provide delivery alternatives to The City in the event of disruption in Tunnels No. 1 or 2. Stage I of Tunnel No. 3 commenced operation in July 1998. The Manhattan leg of Stage II was completed and activated in October 2013. Construction of Stage II continues towards its expected operational date in the mid 2020s.

Stage II extends from the end of Stage I to supply Queens, Brooklyn, and the Richmond Tunnel servicing Staten Island, and it extends from the valve chamber at Central Park into Lower Manhattan. When all of Stage II comes on line, DEP will have achieved full redundancy of Tunnels No. 1 and 2. This will allow DEP to inspect and repair these tunnels for the first time since they were put into operation in 1917 and 1936, respectively.

The CIP includes \$200.2 million for water conveyance projects. Funds included in the CIP for conveyance include DEP's Water for the Future program. Water for the Future includes the water supply augmentation, including the rehabilitation of the Catskill Aqueduct and groundwater supplies in Queens, a water demand management program to reduce City water consumption, the construction of a three-mile bypass tunnel around a portion of the Rondout-West Branch Tunnel section of the Delaware Aqueduct, and the repair of the lining in other sections of the tunnel. Shaft construction for the bypass tunnel is underway and funds for construction were committed in prior years.

### WATER DISTRIBUTION & TREATMENT

The System's drinking water is among the best in the country. The CIP includes approximately \$3.4 billion for the protection, expansion, and distribution of The City's water supply, including nearly \$1.6 billion for trunk and distribution water main replacements and extensions. Additionally, \$135.4 million is included for the completion of construction of a full-scale filtration plant for the treatment of water from the Croton watershed which commenced operation in May 2015, along with \$332.7 million for the dam safety program, including the reconstruction of Gilboa Dam.

The program also calls for \$984.7 million to be committed to on-going water quality preservation and protection. To ensure its continuing quality and to comply with federal and state standards, DEP is pursuing a comprehensive program to protect the relatively pristine Catskill and Delaware watersheds. DEP continues to acquire and manage environmentally sensitive property in the upstate watershed and undertake other ongoing projects in partnership with watershed residents, as part of the Filtration Avoidance Determination ("FAD") issued by the U.S. Environmental Protection Agency ("USEPA"). The FAD allows The City to avoid filtering water from the Catskill and Delaware systems. In July 2007, USEPA issued, for the first time, a 10-year FAD to The City, extending to 2017. The New York State Department of Health issued a midterm revision of the FAD in May 2014. USEPA has previously issued a series of FADs to The City for shorter terms, since 1993.

## WATER POLLUTION CONTROL

To improve the quality of The City's estuaries and surrounding waterways and to comply with federal Clean Water Act mandates, \$5.6 billion is included in the CIP for water pollution control programs. Investments in water pollution control are primarily responsible for the improvements to water quality in New York Harbor and the Jamaica Bay watershed.

The CIP allocates \$3.0 billion for the replacement or reconstruction of components at The City's wastewater treatment facilities to ensure their continuous and reliable operations, including nitrogen removal upgrades at eight wastewater treatment plants, four of which discharge into the Upper East River and four of which discharge into Jamaica Bay. Additionally, the CIP includes funds to complete mandated projects at the System's largest treatment plant, Newtown Creek. As a result of the substantial capital investment in upgrades to Newtown Creek, it now meets the secondary treatment requirements under the Clean Water Act along with all of the System's other City water pollution control plants.

DEP's CIP also includes \$2.4 billion for mandated projects, including those projects which will reduce combined sewer overflow ("CSO"). CSOs are currently a source of pollution in the waterways surrounding The City. CSO events occur during and after heavy rainstorms, when the flow of wastewater and storm water in the sewers exceeds the treatment capacity of a wastewater treatment plant and enters surrounding waterways untreated. In September 2010, DEP released a green infrastructure plan presenting an alternative approach to reducing CSOs. The plan uses a mix of green infrastructure to prevent storm water from reaching the sewers and cost-effective traditional infrastructure that will reduce sewer overflows into waterways. On March 8, 2012, DEP signed a groundbreaking agreement with the New York State Department of Environmental Conservation to reduce CSOs which incorporated the goals of this innovative plan. As part of the agreement, DEP will submit a series of CSO long-term control plans to ensure the water bodies comply with Clean Water Act requirements.

## SEWERS

Approximately \$4.3 billion is projected in the CIP to be committed to replacing existing sewers in areas requiring increased capacity, extending sewers to unserved or underserved areas, and replacing failing, flawed, or collapsed sewer mains.

## EQUIPMENT

Programs in this category of the CIP include water meter installation, automated meter reading systems, the procurement of vehicles and equipment, management information systems, and utility relocation for sewers and water mains. A total of \$510.4 million is included in the CIP for these projects.

The automated meter reading system will transmit water usage information by radio signal to DEP. DEP has installed over 817,000 transmitters, covering 97% of all customers. Since 2010, DEP also has installed over 430,000 new water meters. All customers whose accounts have been upgraded for automated meter reading can now access details of their water usage through DEP's website.

## INDEPENDENT AUDIT

Section 6.11 (b) of the Financing Agreement by and among The City, the Authority, and the Water Board dated as of July 1, 1985, requires that the Authority shall submit to the Mayor, the Comptroller, and the Director of Management and Budget of the City, audited annual financial statements of the Authority and the Water Board. The financial section of the 2015 Comprehensive Annual Financial Report begins with the report of our independent auditors, Deloitte & Touche LLP. This report expresses an unmodified opinion as to the fairness of the presentation of our financial statements.

## RESPECTFULLY SUBMITTED,

**Thomas G. Paolicelli**  
*Executive Director*

**Robert L. Balducci**  
*Comptroller*

# ORGANIZATIONAL CHART

## NYC MUNICIPAL WATER FINANCE AUTHORITY

**BOARD OF DIRECTORS**  
7 Authorized Members

CHIEF EXECUTIVE OFFICER

EXECUTIVE DIRECTOR

SECRETARY      COMPTROLLER      TREASURER

## NYC WATER BOARD

**BOARD OF DIRECTORS**  
7 Authorized Members

EXECUTIVE DIRECTOR

SECRETARY      TREASURER

## NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION

**COMMISSIONER**

**FIRST DEPUTY COMMISSIONER**





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**New York City  
Water and Sewer System  
New York**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2014**

Executive Director/CEO

# SYSTEM OFFICIALS

## NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY

### Board of Directors

**Dean A. Fuleihan**, ex officio Member

**Jacques Jiha**, ex officio Member

**Basil Seggos**, ex officio Member

**Emily Lloyd**, ex officio Member

**Max Von Hollweg**, Member

**Marc V. Shaw**, Member

### Staff

**Alan L. Anders**, Chief Executive Officer

**Thomas G. Paolicelli**, Executive Director

**Prescott D. Ulrey**, Secretary

**Robert L. Balducci**, Comptroller

**Nameca Sharma**, Assistant Comptroller

**Jeffrey M. Werner**, Assistant Secretary

**Albert M. Rodriguez**, Assistant Secretary

**Charles C. Barkley**, Deputy Treasurer

## NEW YORK CITY WATER BOARD

### Members

**Alfonso L. Carney Jr.**, Chairman

**Tawan Davis**, Member

**Joseph G. Finnerty III**, Member

**Adam Freed**, Member

**Jonathan E. Goldin**, Member

**Arlene M. Shaw**, Member

### Staff

**Mathilde O. McLean**, Executive Director

**Greg L. Ascierto**, Acting Treasurer

**Albert M. Rodriguez**, Secretary

## NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION

**Emily Lloyd**, Commissioner

**Steven W. Lawitts**, First Deputy Commissioner

### Customer Services

**Nancy Cianflone**, Deputy Commissioner

### Engineering Design and Construction

**Vincent S. Sapienza, P.E.**, Deputy Commissioner

### Labor Relations and Discipline

**David M. Cohen**, Deputy Commissioner

### Legal Affairs

**Robin Levine**, Acting General Counsel

### Organizational Development

**Diana Jones Ritter**, Deputy Commissioner

### Police and Security

**Kevin T. McBride**, Deputy Commissioner

### Sustainability

**Angela Licata**, Deputy Commissioner

### Wastewater Treatment

**John G. Petito, P.E.**, Acting Deputy Commissioner

### Water and Sewer Operations

**James J. Roberts, P.E.**, Deputy Commissioner

### Water Supply

**Paul V. Rush, P.E.**, Deputy Commissioner

## **INDEPENDENT AUDITORS' REPORT**

To the Joint Audit Committee of  
New York City Municipal Water Finance Authority  
and New York City Water Board

### **Report on the Combining Financial Statements**

We have audited the accompanying combining statements of net position of the New York City Municipal Water Finance Authority and the New York City Water Board, which collectively comprise the New York City Water and Sewer System (the "System"), a component unit of The City of New York, as of June 30, 2015 and 2014, and the related combining statements of revenues, expenses, and changes in net position, and cash flows for the years then ended, and the related notes to the combining financial statements, which collectively comprise the System's basic combining financial statements as listed in the table of contents.

### **Management's Responsibility for the Combining Financial Statements**

Management is responsible for the preparation and fair presentation of these combining financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the combining financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibility**

Our responsibility is to express an opinion on these combining financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the combining financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combining financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the combining financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the combining financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combining financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## **Opinion**

In our opinion, the combining financial statements referred to above present fairly, in all material respects, the net position of “the System” as of June 30, 2015 and 2014, and the respective changes in net position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## **Emphasis of a Matter**

As discussed in Note 2 to the combining financial statements, in 2015, the System adopted Governmental Accounting Standards Board (“GASB”) Statement No. 72, *Fair Value Measurement and Application*. As a result of adopting this standard, the System has included comparable disclosure for its June 30, 2014 financial statements to reflect the adoption of this standard.

## **Other Matters**

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the Management’s Discussion and Analysis on pages 11 through 19, and the Schedule of Funding Progress for the Other Postemployment Benefit Plan, the schedule of the Authority’s Proportional share of the Net Pension Liability and the schedule of the Authority’s Pension Contribution on page 63, be presented to supplement the basic combining financial statements. Such information, although not a part of the basic combining financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic combining financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management’s responses to our inquiries, the basic combining financial statements, and other knowledge we obtained during our audits of the basic combining financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance

### *Other Supplementary Information*

Our audits were conducted for the purpose of forming opinions on the combining financial statements that collectively comprise the System’s basic combining financial statements. The Introductory Section and Statistical Section, as listed in the foregoing table of contents, are presented for purposes of additional analysis and are not a required part of the basic combining financial statements.

The Introductory Section and Statistical Section have not been subjected to the auditing procedures applied in the audit of the basic combining financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

*Deloitte & Touche LLP*

# MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

## OVERVIEW OF THE FINANCIAL STATEMENTS

The following is an overview of the financial activities of the New York City Water and Sewer System (the "System") for the fiscal years ended June 30, 2015 and 2014. The System is a joint operation consisting of two legally separate and independent entities, the New York City Municipal Water Finance Authority (the "Authority") and the New York City Water Board (the "Water Board"). The System is a component unit of The City of New York ("The City").

The financial statements consist of three parts - 1) management's discussion and analysis (this section), 2) the financial statements, and 3) the notes to the financial statements.

The basic financial statements of the System, which include the combining statements of net position, the combining statements of revenues, expenses and changes in net position, and the combining statements of cash flows, are presented for the purposes of displaying entity-wide information in accordance with Governmental Accounting Standards Board ("GASB") requirements. These financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting.

In fiscal year 2014, the System implemented Governmental Accounting Standards Board Statement No. 68, *Accounting and Financial Reporting for Pensions an amendment of GASB Statement No. 27 ("GASB Statement No. 68")*. GASB Statement No. 68 establishes standards of accounting and financial reporting for defined benefit pensions and defined contribution pensions provided to employees of state and local government. The System participates in a cost sharing multiple-employer pension system as defined by GASB Statement No. 68. The implementation of GASB Statement No. 68 resulted in the restatement of the System's fiscal year 2013 financial statements.

In fiscal year 2015, the System implemented Governmental Accounting Standards Board Statement No. 72, *Fair Value Measurement and Application ("GASB Statement No. 72")*. GASB Statement No. 72 establishes standards of accounting and financial reporting for fair value measurement and disclosures. The standard requires all state and local governments to disclose information as to the level or class of certain investments and liabilities and the method used for determining the fair value. The implementation of GASB Statement No. 72 resulted in additional disclosures for fair value measurement of investments and certain liabilities (See Notes 2 and 4 for details on the implementation of GASB Statement No. 72).

## FINANCIAL ANALYSIS AND RESULTS OF OPERATIONS

The following summarizes the activities of the System for the fiscal years 2015, 2014, and 2013 (in thousands):

	2015	2014	Restated	Variance	
			2013	2015 v 2014	2014 v 2013
<b>REVENUES:</b>					
Water supply and distribution	\$1,382,189	\$1,351,550	\$1,278,646	\$30,639	\$72,904
Sewer collection and treatment	2,197,679	2,148,964	2,033,047	48,715	115,917
Bad debt expense	(23,301)	(26,979)	(16,983)	3,678	(9,996)
Other operating revenues	221,267	183,760	172,283	27,507	11,477
<b>Total operating revenues</b>	<b>3,767,834</b>	<b>3,657,295</b>	<b>3,466,993</b>	<b>110,539</b>	<b>190,302</b>
Subsidy income	163,655	174,606	174,862	(10,951)	(256)
Investment income	22,426	50,148	58,793	(27,722)	(8,645)
Legal settlement	—	83,236	—	(83,236)	83,236
<b>Total revenues</b>	<b>3,953,915</b>	<b>3,965,285</b>	<b>3,700,648</b>	<b>(11,370)</b>	<b>264,637</b>
<b>EXPENSES:</b>					
Operations and maintenance	1,439,415	1,490,550	1,361,055	(51,135)	129,495
Other operating expenses	77,717	27,874	14,685	49,843	13,189
Administration and general	55,865	68,936	56,738	(13,071)	12,198
Depreciation expense	1,023,906	740,879	677,560	283,027	63,319
Capital distribution	25,337	39,627	25,429	(14,290)	14,198
Net loss on retirement and impairment of capital assets	2,334	18,815	20,976	(16,481)	(2,161)
Interest expense	1,264,538	1,263,305	1,225,771	1,233	37,534
<b>Total expenses</b>	<b>3,889,112</b>	<b>3,649,986</b>	<b>3,382,214</b>	<b>239,126</b>	<b>267,772</b>
Net gain / (loss) before capital contributions	64,803	315,299	318,434	(250,496)	(3,135)
Capital contributions	223,791	9,799	7,699	213,992	2,100
Change in net position	288,594	325,098	326,133	(36,504)	(1,035)
Net position—beginning	(158,801)	(483,899)	(809,032)	325,098	325,133
Restatement of beginning net position	—	—	(1,000)	—	1,000
<b>Net position (deficit)—ending</b>	<b>\$129,793</b>	<b>\$(158,801)</b>	<b>\$(483,899)</b>	<b>\$288,594</b>	<b>\$325,098</b>

## OPERATING REVENUE

### 2015-2014

Operating revenue increased by \$110.5 million or 3.0%, predominantly due to a rate increase of 3.35%.

### 2014-2013

Operating revenue increased by \$190.3 million or 5.5%, predominantly due to a rate increase of 5.6%.

## OTHER OPERATING REVENUES

The following summarizes other operating revenues for fiscal years 2015, 2014, and 2013 (in thousands):

	Variance				
	2015	2014	2013	2015 v 2014	2014 v 2013
Upstate water fees	\$78,427	\$86,676	\$65,640	\$(8,249)	\$21,036
Late payment fees	55,079	50,426	47,580	4,653	2,846
Change in residual interest in sold liens	5,479	6,585	7,754	(1,106)	(1,169)
Release of escrow/legal settlement	33	-	21,960	33	(21,960)
Federal funding	-	-	1,678	-	(1,678)
Program revenue	2,700	-	-	-	-
Connection fees and permits	17,551	13,449	11,840	4,102	1,609
Rental rebate	28,043	9,094	12,273	18,949	(3,179)
Service line protection program	23,955	17,530	3,558	6,425	13,972
<b>Total other operating revenues</b>	<b>\$211,267</b>	<b>\$183,760</b>	<b>\$172,283</b>	<b>\$24,807</b>	<b>\$11,477</b>

### 2015-2014

Upstate water fees decreased by \$8.2 million or 9.5% compared to fiscal year 2014. The decrease was due to the combination of: 1) a catch-up adjustment in fiscal year 2014 to recognize unbilled revenue of \$13.7 million, 2) an offset of a 5.13% increase in the wholesale rate in fiscal year 2015 for the quantity of water the municipalities were entitled to by law, and 3) an offset of a 3.35% rate increase in fiscal year 2015 for consumption in excess of the entitlement quantity.

Late payment fees increased by \$4.6 million or 9.2%. This amount fluctuates depending on the timeliness of customer payments.

The change in residual interest in sold liens decreased by \$1.1 million or 16.8% compared to fiscal year 2014. This was due to fewer residual collections transferred to the System from the lien sale trusts.

Program revenue was \$2.7 million. This revenue was from The City for water and sewer credits to be provided to certain low-income customers and customers participating in The City's Build-It-Back program.

Connection fees and permits increased by \$4.1 million or 30.5%. This amount fluctuates each year based on new construction activities.

The rental rebate, a portion of the base rental payment by The City, increased by \$18.9 million compared to fiscal year 2014. This was due to the calculation of the rental rebate based on a change to an intergovernmental agreement.

The amounts received for the service line protection program increased by \$6.4 million. The number of effective policies steadily increased from approximately 142,000 on July 1, 2014, to approximately 179,000 by the end of fiscal year 2015.

### 2014-2013

Upstate water fees increased by \$21 million or 32.1% compared to fiscal year 2013. The increase was due to the combination of: 1) a 12.34% increase in the wholesale rate for the quantity of water the municipalities were entitled to by law, 2) a 5.6% rate increase for consumption in excess of the entitlement quantity, and 3) an inclusion of \$13.7 million of unbilled revenue.

Late payment fees increased by \$2.8 million or 6.0%. The increase is primarily due to the rate increase of 5.6%

The change in residual interest in sold liens decreased by \$1.2 million or 15.1% compared to fiscal year 2013. This was due to fewer residual collections transferred to the System from the lien sale trusts.

There was no federal funding in fiscal year 2014. The federal funding to support technical assistance in developing a Contamination Warning System Demonstration Pilot Program ended in fiscal year 2013.

Connection fees and permits increased by \$1.6 million or 13.6%. This was due primarily to new construction activities.

The rental rebate, a portion of the base rental payment by The City, decreased by \$3.2 million or 25.9% compared to fiscal year 2013. This was due to the calculation of the rental rebate based on an intergovernmental agreement.

The amounts received for the service line protection program increased by \$14.0 million. The program was offered for the full fiscal year 2014 compared to only six months in fiscal year 2013. In addition, the number of effective policies steadily increased from approximately 91,000 on July 1, 2013 to approximately 142,000 by the end of fiscal year 2014.

## INVESTMENT INCOME

### 2015-2014

Investment income decreased by \$27.7 million or 55.3% compared to fiscal year 2014. This was due primarily to a termination of a variable interest rate exchange agreement (a "SWAP") in June 2014, a reduction of interest income in the revenue and debt service reserve funds, a decline in unrealized gain on investments in Forward Purchase Agreements ("FPA"), and an increase in arbitrage rebate expense.

### 2014-2013

Investment income decreased by \$8.6 million or 14.7% compared to fiscal year 2013. For fiscal year 2013, unrealized gains were higher due to a Guaranteed Investment Contract ("GIC") that had a one-time option to terminate. The option, however, was not exercised by the counterparty.

## LEGAL SETTLEMENT

### 2014-2013

In 2003, The City sued refiners and manufacturers of gasoline that contained methyl tertiary butyl ether ("MTBE"), a gasoline additive that replaces lead and enables gasoline to burn more cleanly. The City's lawsuit claimed that the oil companies added MTBE to gasoline starting in the late 1970s, knowing that it would

contaminate soil and groundwater when gasoline leaks or spills, and knowing that underground storage tanks at gas stations, many of which are owned by the same companies, regularly leak.

The City's drinking water system in southeast Queens has 68 wells – more than half of which were contaminated by MTBE. Since initiating the suit, The City had settled with all of the defendants except ExxonMobil, until this fiscal year. After a trial that began in the summer of 2009 and subsequent appeals by Exxon Mobil, The City won the case and Exxon Mobil paid damages of \$83 million to the Water Board in fiscal year 2014.

## OPERATING EXPENSES

### 2015-2014

Total operations and maintenance expenses decreased by \$51.1 million or 3.4%. This decrease was due primarily to a decrease in the citywide fringe benefit rate from 51% in fiscal year 2014 to 48% in fiscal year 2015.

Administrative and general expenses decreased by \$13.1 million or 19.0% compared to fiscal year 2014. The Water Board's expenses decreased by \$15.8 million, and the Authority's expenses increased by approximately \$2.7 million due to the increase in outstanding variable rate bonds and liquidity agreements. In fiscal year 2014, the Water Board included \$16.4 million of service line protection program expense in administration and general. However, in fiscal year 2015, the service line protection program expense was included in other operating expenses; this resulted in a decrease in fiscal year 2015 administration and general expense.

### 2014-2013

Total operations and maintenance expenses increased by \$129.5 million or 9.5%. The personal services expense increased by approximately \$76 million due to wage accruals to cover the provision necessary for collective bargaining agreements and other open employee contracts. Also, other than personal services increased by \$32.7 million, mainly due to the operational costs for the new facilities (Cat/Del Ultraviolet Disinfection Facility and Croton Filtration Plant), increases in upstate property taxes, increases in Department of Investigation contract oversight, and a new program to prevent sewer back-ups. The remaining increase was due to an increase in judgment and claims and a reversal of prior year accruals.

Administrative and general expenses increased by \$12.2 million or 21.5% compared to fiscal year 2013. The Water Board expenses increased by \$13.2 million due to an increase of the service line protection program payments to American Water Resources, which are pass-through payments based upon the number of DEP customers enrolled in the program. Payments for a contract to evaluate the effectiveness of the operations and maintenance of the System also increased by \$2.3 million. Other Water Board expenses decreased by approximately \$1.4 million.

### OTHER OPERATING EXPENSES

#### 2015-2014

Other operating expenses increased by \$49.8 million compared to fiscal year 2014. This was due primarily to a one-time payment of \$25.6 million to The City for outstanding expenses, the inclusion of \$22.9 million of service line protection program payments to American Water Resources, and other program expense of \$2.7 million to provide credits to certain low-income customers and customers participating in The City's Build-It-Back program.

#### 2014-2013

Other operating expenses increased by \$13.2 million compared to fiscal year 2013. In fiscal year 2013, the reversal of a \$44 million accrual caused the expense to be low.

### NON-OPERATING EXPENSES

#### 2015-2014

Net loss on retirement and impairment of capital assets decreased by \$16.5 million. In fiscal year 2015, fewer assets with carrying values were disposed.

#### 2014-2013

Interest expense increased by \$37.5 million or 3.1% compared to fiscal year 2013. This was due primarily to the increase of bonds outstanding at the end of fiscal year 2014.

Net loss on retirement and impairment of capital assets decreased by \$2.2 million. In fiscal year 2013, due to Hurricane Sandy, the impairment of capital assets was much higher.

### CHANGE IN NET POSITION

#### 2015-2014

The change in net position represents the net total of operating revenue and expenses, non-operating revenues and expenses, and capital contributions. The variance in the Change in Net Position decreased by \$36.5 million in fiscal year 2015.

#### 2014-2013

The change in net position represents the net total of operating revenue and expenses, non-operating revenues and expenses, and capital contributions. The variance in the Change in Net Position decreased by \$1.0 million in fiscal year 2014.

### ENDING NET POSITION

#### 2015-2014

The ending net position represents the net total of operating revenue and expenses, non-operating revenues and expenses, capital contributions, and beginning balance of net position. Ending net position increased by \$288.6 million in fiscal year 2015.

#### 2014-2013

The ending net position represents the net total of operating revenue and expenses, non-operating revenues and expenses, capital contributions, and beginning balance of net position. Ending net position increased by \$325.1 million in fiscal year 2014.

The following is a summary of the System's assets, liabilities, and net position as of June 30 (in thousands):

			<b>Restated</b>	<b>Variance</b>	
	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2015 v 2014</b>	<b>2014 v 2013</b>
<b>ASSETS:</b>					
Current assets	\$3,140,067	\$3,125,177	\$3,020,559	\$14,890	\$104,618
Residual interest in sold liens	71,596	66,116	59,531	5,480	6,585
Capital assets	<u>28,664,121</u>	<u>28,392,330</u>	<u>27,460,482</u>	<u>271,791</u>	<u>931,848</u>
<b>Total assets</b>	<b>31,875,784</b>	<b>31,583,623</b>	<b>30,540,572</b>	<b>292,161</b>	<b>1,043,051</b>
<b>DEFERRED OUTFLOWS OF RESOURCES:</b>					
Deferred outflows from hedging	103,182	86,502	81,108	16,680	5,394
Deferred outflows from pension	105	235	13	(130)	222
Unamortized deferred bond refunding costs	<u>-</u>	<u>4,294</u>	<u>9,928</u>	<u>(4,294)</u>	<u>(5,633)</u>
<b>Total deferred outflows of resources</b>	<b>103,287</b>	<b>91,031</b>	<b>91,049</b>	<b>12,256</b>	<b>(17)</b>
<b>Total assets and deferred outflows</b>	<b>\$31,979,071</b>	<b>\$31,674,654</b>	<b>\$30,631,621</b>	<b>\$304,417</b>	<b>\$1,043,034</b>
<b>LIABILITIES:</b>					
Current liabilities	\$1,702,560	\$1,504,946	\$2,055,241	\$197,614	\$(550,295)
Long-term liabilities	<u>30,128,541</u>	<u>30,328,237</u>	<u>29,060,215</u>	<u>(199,696)</u>	<u>1,268,022</u>
<b>Total liabilities</b>	<b>31,831,101</b>	<b>31,833,183</b>	<b>31,115,456</b>	<b>(2,082)</b>	<b>717,727</b>
<b>DEFERRED INFLOWS OF RESOURCES:</b>					
Deferred inflows from pension	199	272	64	(73)	208
Unamortized deferred bond refunding costs	<u>17,978</u>	<u>-</u>	<u>-</u>	<u>17,978</u>	<u>-</u>
<b>Total deferred inflows of resources</b>	<b>18,177</b>	<b>272</b>	<b>64</b>	<b>17,905</b>	<b>208</b>
<b>NET POSITION (DEFICIT):</b>					
Net investment in capital assets	(598,349)	(771,165)	(945,890)	172,816	174,725
Restricted for debt service	1,224,925	1,145,505	918,229	79,420	227,276
Restricted for operations and maintenance	226,383	221,440	212,233	4,943	9,207
Unrestricted (deficit)	<u>(723,166)</u>	<u>(754,581)</u>	<u>(668,471)</u>	<u>31,415</u>	<u>(86,110)</u>
<b>Total net position (deficit)</b>	<b>129,793</b>	<b>(158,801)</b>	<b>(483,899)</b>	<b>288,594</b>	<b>325,098</b>
<b>Total liabilities, deferred inflows of resources, and net position</b>	<b>\$31,979,071</b>	<b>\$31,674,654</b>	<b>\$30,631,621</b>	<b>\$304,418</b>	<b>\$1,043,034</b>

**2015-2014**

Residual interest in sold liens receivable increased by \$5.5 million or 8.3% compared to fiscal year 2014 due to a new tax lien issued in May 2015.

Deferred outflows from hedging increased by \$16.7 million or 19.3% due to an increase in the fair value of hedging derivative instruments.

Current liabilities increased by \$197.6 million or 13.1% compared to fiscal year 2014. This is primarily due to an increase of \$100 million in the issuance of commercial paper and an increase of \$100 million in the change of debt from long term to current.

Long-term liabilities decreased by \$199.7 million or 0.7%, primarily due to the retirement of outstanding bonds and an increase in the current portion of debt as it was reclassified from long-term debt.

**2014-2013**

Current assets increased by \$104.6 million or 3.4% due to an increase in revenue funds held by the Authority at June 30, 2014.

Residual interest in sold liens increased by \$6.6 million or 11.1% compared to fiscal year 2013.

Deferred outflows from hedging increased by \$5.4 million or 6.7% due to a decrease in the fair value of the hedging derivative instruments.

Long-term liabilities increased by \$1.3 billion or 4.4%, primarily due to the increase in the bonds issued.

Current liabilities decreased by \$550.3 million or 26.8% compared to fiscal year 2013. This was primarily due to a decrease in the payable to The City for operations and maintenance by \$50 million and a decrease of \$496 million of the current portion of bonds and notes payable.

## CAPITAL ASSETS

The System's capital assets include buildings, equipment, vehicles, water supply and wastewater treatment systems, and water distribution and sewage collection systems, as well as utility construction.

Capital assets as of June 30 are detailed as follows (in thousands):

	2015	2014	2013	Variance	
				2015 v 2014	2014 v 2013
<b>NONDEPRECIABLE ASSETS -</b>					
<b>UTILITY CONSTRUCTION</b>	\$4,558,225	\$6,812,608	\$9,063,048	\$(2,254,383)	\$(2,250,440)
<b>UTILITY PLANT IN SERVICE:</b>					
Buildings	34,877	34,877	34,877	-	-
Equipment	3,774,428	3,434,110	2,211,487	340,318	1,222,624
Vehicles	291,345	164,553	157,118	126,792	7,435
Water supply and distribution and wastewater treatment and sewage collection systems	<u>32,075,316</u>	<u>29,000,071</u>	<u>26,470,360</u>	<u>3,075,245</u>	<u>2,529,710</u>
<b>Total utility plant in service</b>	<b><u>36,175,966</u></b>	<b><u>32,633,611</u></b>	<b><u>28,873,842</u></b>	<b><u>3,542,355</u></b>	<b><u>3,759,769</u></b>
<b>LESS ACCUMULATED</b>					
<b>DEPRECIATION FOR:</b>					
Buildings	(23,822)	(22,506)	(21,189)	(1,316)	(1,317)
Equipment	(1,412,576)	(1,169,222)	(927,797)	(243,354)	(241,425)
Vehicles	(121,113)	(110,510)	(104,798)	(10,603)	(5,711)
Water supply and distribution and wastewater treatment and sewage collection systems	<u>(10,512,559)</u>	<u>(9,751,651)</u>	<u>(9,422,624)</u>	<u>(760,908)</u>	<u>(329,027)</u>
<b>Total accumulated depreciation</b>	<b><u>(12,070,070)</u></b>	<b><u>(11,053,889)</u></b>	<b><u>(10,476,408)</u></b>	<b><u>(1,016,181)</u></b>	<b><u>(577,480)</u></b>
<b>Total utility plant in service - net</b>	<b><u>24,105,896</u></b>	<b><u>21,579,722</u></b>	<b><u>18,397,434</u></b>	<b><u>2,526,173</u></b>	<b><u>3,182,289</u></b>
<b>Total capital assets - net</b>	<b><u>\$28,664,121</u></b>	<b><u>\$28,392,330</u></b>	<b><u>\$27,460,482</u></b>	<b><u>\$271,790</u></b>	<b><u>\$931,849</u></b>

### 2015-2014

The increase in the System's capital assets, net of depreciation during fiscal year 2015 was \$271.8 million or 1.0%. Additions to utility construction for fiscal year 2015 were \$1.3 billion. Utility construction deletions for fiscal year 2015 were \$3.6 billion (this amount equals to addition to depreciable assets of \$3.6 million less of \$10.1 million assets retired in fiscal 2015), which consisted of \$1.4 billion for the CAT/Del Ultraviolet Disinfection Facility and Croton Filtration Plant and approximately ten other projects totaling \$1.2 billion. See Note 3 (Utility Plant) for further details.

### 2014-2013

The increase in the System's capital assets, net of depreciation during fiscal year 2014 was \$931.8 million or 3.4%. Capital asset additions of utility construction for fiscal year 2014 were \$1.7 billion.

### DEBT ADMINISTRATION

The Authority issues debt to pay for the capital improvements to the System and certain related costs. Certain costs related to the System's filtration avoidance determination, including land acquisition in the upstate watershed and costs associated with pollution remediation, are financed with debt but are not recorded as System assets on the balance sheet. The cumulative amount of expenses not capitalized as assets as of June 30, 2015 was \$1.4 billion. These costs or distributions are expensed in the System's combining statements of revenues, expenses, and changes in net position (deficit) in the years incurred. The land purchased is granted to The City and becomes The City's capital asset because it is not subject to the capital lease under which the System reports water distribution and wastewater collection and treatment capital assets.

The debt program of the Authority includes commercial paper, long-term debt, Bond Anticipation Notes

("BANs"), and subsidized bonds issued through the New York State Environmental Facilities Corporation ("EFC"). The commercial paper program is the main source of financing to reimburse The City for payments made for water and sewer projects. The Authority then issues long-term debt to retire outstanding commercial paper and debt through EFC to retire BANs. The Authority also periodically issues refunding bonds to refinance higher-coupon debt. See Note 9 (Short-Term Debt) and Note 10 (Long-Term Debt) for further details.

At June 30, 2015, the total outstanding debt of the System was \$30.9 billion, of which \$600.0 million was commercial paper, \$377.3 million was outstanding against BANs issued to EFC, \$29.0 billion consisted of adjustable and fixed-rate bonds maturing in varying installments through 2050, and the remaining \$960.7 million was premium on bonds.

The total outstanding long-term debt including current portion at June 30, 2015 was as follows (in thousands):

ISSUE DATE	PRINCIPAL OUTSTANDING <sup>1</sup>
2015	\$2,967,971
2014	3,171,976
2013	2,283,230
2012	3,595,690
2011	4,404,804
2010 and prior	12,948,951
<b>Total long-term debt</b>	<b>\$29,372,621</b>

<sup>1</sup> Principal outstanding does not include premium or discount on bonds.

In fiscal year 2015, the Authority issued \$2.9 billion of water and sewer revenue bonds directly to the public, including \$2.0 billion of refunding bonds and \$936.1 million of new money bonds. The Authority used new money bond proceeds to finance capital improvements to the System, to provide long-term financing of commercial paper notes that previously financed capital improvements to the System, and to pay for bond issuance costs.

The Authority issued the following debt in fiscal year 2015:

- On July 10, 2014, the Authority issued \$200 million of new money tax-exempt fixed rate Second Resolution Bonds, Fiscal 2015 Series AA. The bonds mature in 2044.
- On July 10, 2014, the Authority issued \$400 million of new money tax-exempt adjustable rate Second Resolution Bonds, Fiscal 2015 Series BB. The bonds are backed by standby purchase agreements provided by four banks. The bonds mature in 2049 and 2050.
- On September 24, 2014, the Authority issued \$200 million of new money tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series CC. The bonds mature in 2045.
- On September 24, 2014, the Authority issued \$300 million of refunding tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series DD. The bonds refunded portions of the Authority's First Resolution bonds, Fiscal 2005 Series B. The bonds mature in 2028, 2029, and 2036.
- On November 20, 2014, the Authority issued \$392.1 million of refunding and new money tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series EE. The new money bonds included a bond maturing in 2045. The refunding bonds refunded portions of the Authority's First Resolution bonds, Fiscal 2005 Series B. The bonds mature in 2028, 2029, and 2036.
- On March 17, 2015, the Authority issued \$530.0 million of refunding tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series FF. The bonds refunded portions of the Authority's First Resolution bonds, Fiscal 2005 Series C, Fiscal 2005 Series D, and Fiscal 2006 Series A. The bonds mature from 2025 to 2037, and a bond matures in 2039.
- On April 9, 2015, the Authority issued \$450.3 million of refunding tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series GG. The bonds refunded portions of the Authority's First Resolution bonds, Fiscal 2005 Series C, Fiscal 2005 Series D, and Fiscal 2006 Series A. The bonds mature from 2025 to 2039.

## MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

- On May 28, 2015, the Authority issued \$452.5 million of refunding tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series HH. The bonds refunded portions of the Authority's First Resolution bonds, Fiscal 2005 Series C, Fiscal 2005 Series D, and Fiscal 2006 Series A. The bonds mature from 2025 to 2039.
- During fiscal year 2015, the Authority issued \$800 million of commercial paper notes to pay for costs of improvements to the System. As of June 30, 2015, \$600 million of commercial paper notes were outstanding.

## ECONOMIC FACTORS AND NEXT YEAR'S RATES

In May of each year, the Board adopts rates for the following fiscal year. A rate increase of 2.97% for fiscal year 2016, based on projected revenues and costs, became effective July 1, 2015.

## REQUEST FOR INFORMATION

This financial report is provided as an overview of the System's finances. Questions concerning any of the information in this report or requests for additional information should be directed to Investor Relations, New York City Municipal Water Finance Authority, 255 Greenwich Street, New York, New York 10007 or to [NYWInvestors@omb.nyc.gov](mailto:NYWInvestors@omb.nyc.gov).

\* \* \* \* \*

## COMBINING STATEMENTS OF NET POSITION

June 30, 2015 (in thousands):

New York City				
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	ELIMINATIONS	TOTAL
<b>CURRENT ASSETS:</b>				
Unrestricted cash and cash equivalents	\$48	\$5	\$-	\$53
Restricted cash and cash equivalents	22,058	1,789,134	-	1,811,192
Restricted investments	226,317	242,892	-	469,209
Accrued interest and subsidy receivable	-	6,212	-	6,212
Accounts receivable:				
Billed—less allowance for uncollectable water and sewer receivables of \$406,579	370,317	-	-	370,317
Unbilled	363,152	-	-	363,152
Receivable from The City of New York	119,756	-	-	119,756
Prepaid expense	-	176	-	176
<b>Total current assets</b>	<b>1,101,648</b>	<b>2,038,419</b>	<b>-</b>	<b>3,140,067</b>
<b>NON-CURRENT ASSETS:</b>				
Utility plant in service less accumulated depreciation of \$12,070,070	24,105,896	-	-	24,105,896
Utility plant construction	4,558,225	-	-	4,558,225
<b>Total capital assets</b>	<b>28,664,121</b>	<b>-</b>	<b>-</b>	<b>28,664,121</b>
Residual interest in sold liens	71,596	-	-	71,596
Revenue required to be billed by and received from the Water Board	-	14,276,832	(14,276,832)	-
<b>Total non-current assets</b>	<b>28,735,717</b>	<b>14,276,832</b>	<b>(14,276,832)</b>	<b>28,735,717</b>
<b>DEFERRED OUTFLOWS OF RESOURCES:</b>				
Deferred outflows from hedging	-	103,182	-	103,182
Deferred outflows from pension	-	105	-	105
<b>Total deferred outflows of resources</b>	<b>-</b>	<b>103,287</b>	<b>-</b>	<b>103,287</b>
<b>Total assets and deferred outflows of resources</b>	<b>\$29,837,365</b>	<b>\$16,418,538</b>	<b>\$(14,276,832)</b>	<b>\$31,979,071</b>

See notes to combining financial statements.

(Continued)

## COMBINING STATEMENTS OF NET POSITION

June 30, 2015 (in thousands):

## New York City

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	ELIMINATIONS	TOTAL
<b>CURRENT LIABILITIES:</b>				
Accounts payable	\$3,662	\$88	\$-	\$3,750
Interest payable	-	57,535	-	57,535
Revenue received in advance	77,283	-	-	77,283
Commercial paper payable	-	600,000	-	600,000
Current portion of bonds and notes payable	-	391,462	-	391,462
Payable to The City of New York	-	500,587	-	500,587
Service credits on customer accounts	71,943	-	-	71,943
<b>Total current liabilities</b>	<b>152,888</b>	<b>1,549,672</b>	<b>-</b>	<b>1,702,560</b>
<b>LONG-TERM LIABILITIES:</b>				
Bonds and notes payable - net of current portion	-	29,941,881	-	29,941,881
Pollution remediation obligation	78,956	-	-	78,956
Interest rate swap agreement - net	-	103,182	-	103,182
Revenue requirements payable to the Authority	14,276,832	-	(14,276,832)	-
Net pension liability	-	1,012	-	1,012
Other long-term liability	-	3,510	-	3,510
<b>Total long-term liabilities</b>	<b>14,355,788</b>	<b>30,049,585</b>	<b>(14,276,832)</b>	<b>30,128,541</b>
<b>Total liabilities</b>	<b>14,508,676</b>	<b>31,599,257</b>	<b>(14,276,832)</b>	<b>31,831,101</b>
<b>DEFERRED INFLOWS OF RESOURCES:</b>				
Unamortized deferred bond refunding costs	-	17,978	-	17,978
Deferred inflows from pension	-	199	-	199
<b>Total deferred inflows of resources</b>	<b>-</b>	<b>18,177</b>	<b>-</b>	<b>18,177</b>
<b>NET POSITION:</b>				
Net investment in capital assets	28,664,121	(29,262,470)	-	(598,349)
Restricted for debt service	-	1,224,925	-	1,224,925
Restricted for operations and maintenance	226,383	-	-	226,383
Unrestricted (deficit)	(13,561,815)	12,838,649	-	(723,166)
<b>Total net position</b>	<b>15,328,689</b>	<b>(15,198,896)</b>	<b>-</b>	<b>129,793</b>
<b>Total liabilities, deferred inflows of resources, and net position</b>	<b>\$29,837,365</b>	<b>\$16,418,538</b>	<b>\$(14,276,832)</b>	<b>\$31,979,071</b>

See notes to combining financial statements.

(Concluded)

## COMBINING STATEMENTS OF NET POSITION

June 30, 2014 (in thousands):

New York City				
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	ELIMINATIONS	TOTAL
<b>CURRENT ASSETS:</b>				
Unrestricted cash and cash equivalents	\$14,120	\$7	\$-	\$14,127
Restricted cash and cash equivalents	80,764	1,588,101	-	1,668,865
Restricted investments	140,676	507,566	-	648,242
Accrued interest and subsidy receivable	-	6,616	-	6,616
Accounts receivable:				
Billed—less allowance for uncollectable water and sewer receivables of \$383,279	425,226	-	-	425,226
Unbilled	338,687	-	-	338,687
Receivable from The City of New York	23,414	-	-	23,414
<b>Total current assets</b>	<b>1,022,887</b>	<b>2,102,290</b>	<b>-</b>	<b>3,125,177</b>
<b>NON-CURRENT ASSETS:</b>				
Utility plant in service—less accumulated depreciation of \$11,053,889	21,579,722	-	-	21,579,722
Utility plant construction	6,812,608	-	-	6,812,608
<b>Total capital assets</b>	<b>28,392,330</b>	<b>-</b>	<b>-</b>	<b>28,392,330</b>
Residual interest in sold liens	66,116	-	-	66,116
Revenue required to be billed by and received from the Water Board	-	15,334,172	(15,334,172)	-
<b>Total non-current assets</b>	<b>28,458,446</b>	<b>15,334,172</b>	<b>(15,334,172)</b>	<b>28,458,446</b>
<b>DEFERRED OUTFLOWS OF RESOURCES:</b>				
Deferred outflows from hedging	-	86,502	-	86,502
Unamortized deferred bond refunding costs	-	4,294	-	4,294
Deferred outflows from pension	-	235	-	235
<b>Total deferred outflows of resources</b>	<b>-</b>	<b>91,031</b>	<b>-</b>	<b>91,031</b>
<b>Total assets and deferred outflows of resources</b>	<b>\$29,481,333</b>	<b>\$17,527,493</b>	<b>\$(15,334,172)</b>	<b>\$31,674,654</b>

See notes to combining financial statements.

(Continued)

## COMBINING STATEMENTS OF NET POSITION

June 30, 2014 (in thousands):

New York City				
LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	ELIMINATIONS	TOTAL
<b>CURRENT LIABILITIES:</b>				
Accounts payable and accrued expenses	\$4,222	\$56,332	\$-	\$60,554
Revenue received in advance	57,827	-	-	57,827
Commercial paper payable	-	500,000	-	500,000
Current portion of bonds and notes payable	-	291,955	-	291,955
Payable to The City of New York	-	522,036	-	522,036
Service credits on customer accounts	72,574	-	-	72,574
<b>Total current liabilities</b>	<b>134,623</b>	<b>1,370,323</b>	<b>-</b>	<b>1,504,946</b>
<b>LONG-TERM LIABILITIES:</b>				
Bonds and notes payable—net of current portion	-	30,144,755	-	30,144,755
Pollution remediation obligation	98,927	-	-	98,927
Interest rate swap agreement—net	-	79,997	-	79,997
Revenue requirements payable to the Authority	15,334,172	-	(15,334,172)	-
Net pension liability	-	901	-	901
Other long-term liability	-	3,657	-	3,657
<b>Total long-term liabilities</b>	<b>15,433,099</b>	<b>30,229,310</b>	<b>(15,334,172)</b>	<b>30,328,237</b>
<b>Total liabilities</b>	<b>15,567,722</b>	<b>31,599,633</b>	<b>(15,334,172)</b>	<b>31,833,183</b>
<b>DEFERRED INFLOWS OF RESOURCES:</b>				
Deferred inflows from pension	-	272	-	272
<b>Total liabilities and deferred inflows of resources</b>	<b>15,567,722</b>	<b>31,599,905</b>	<b>-</b>	<b>31,833,455</b>
<b>NET POSITION:</b>				
Net investment in capital assets	28,392,330	(29,163,495)	-	(771,165)
Restricted for debt service	-	1,145,505	-	1,145,505
Restricted for operations and maintenance	221,440	-	-	221,440
Unrestricted (deficit)	(14,700,159)	13,945,578	-	(754,581)
<b>Total net position</b>	<b>13,913,611</b>	<b>(14,072,412)</b>	<b>-</b>	<b>(158,801)</b>
<b>Total liabilities, deferred inflows of resources, and net position</b>	<b>\$29,481,333</b>	<b>\$17,527,493</b>	<b>\$(15,334,172)</b>	<b>\$31,674,654</b>

See notes to combining financial statements.

(Concluded)

## COMBINING STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For the year ended June 30, 2015 (in thousands):

	New York City		
	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	TOTAL
<b>OPERATING REVENUES:</b>			
Water supply and distribution	\$1,382,189	\$-	\$1,382,189
Sewer collection and treatment	2,197,679	-	2,197,679
Bad debt expense	(23,301)	-	(23,301)
Other operating revenues	211,267	-	211,267
<b>Total operating revenues</b>	<b>3,767,834</b>	<b>-</b>	<b>3,767,834</b>
<b>OPERATING EXPENSES:</b>			
Operation and maintenance	1,439,415	-	1,439,415
Administration and general	9,945	45,920	55,865
Other operating expenses	77,717	-	77,717
<b>Total operating expenses</b>	<b>1,527,077</b>	<b>45,920</b>	<b>1,572,997</b>
<b>DEPRECIATION EXPENSE</b>	<b>1,023,906</b>	<b>-</b>	<b>1,023,906</b>
<b>OPERATING INCOME / (LOSS)</b>	<b>1,216,851</b>	<b>(45,920)</b>	<b>1,170,931</b>
<b>NON-OPERATING REVENUE (EXPENSES):</b>			
Interest expense	-	(1,247,529)	(1,247,529)
Cost of issuance	-	(17,009)	(17,009)
Net loss on retirement and impairment of capital assets	(2,334)	-	(2,334)
Subsidy income	-	163,655	163,655
Capital distribution	(25,337)	-	(25,337)
Investment income	2,107	20,319	22,426
<b>NET INCOME / (LOSS) BEFORE CAPITAL CONTRIBUTIONS</b>	<b>1,191,287</b>	<b>(1,126,484)</b>	<b>64,803</b>
<b>CAPITAL CONTRIBUTION</b>	<b>223,791</b>	<b>-</b>	<b>223,791</b>
<b>CHANGE IN NET POSITION</b>	<b>1,415,078</b>	<b>(1,126,484)</b>	<b>288,594</b>
<b>NET POSITION (DEFICIT)—Beginning of year</b>	<b>13,913,611</b>	<b>(14,072,412)</b>	<b>(158,801)</b>
<b>NET POSITION (DEFICIT)—End of year</b>	<b>\$15,328,689</b>	<b>\$(15,198,896)</b>	<b>\$129,793</b>

See notes to combining financial statements.

## COMBINING STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For the year ended June 30, 2014 (in thousands):

	New York City		TOTAL
	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	
<b>OPERATING REVENUES:</b>			
Water supply and distribution	\$1,351,550	\$-	\$1,351,550
Sewer collection and treatment	2,148,964	-	2,148,964
Bad debt expense	(26,979)	-	(26,979)
Other operating revenues	183,760	-	183,760
<b>Total operating revenues</b>	<b>3,657,295</b>	<b>-</b>	<b>3,657,295</b>
<b>OPERATING EXPENSES:</b>			
Operation and maintenance	1,490,550	-	1,490,550
Administration and general	25,765	43,171	68,936
Other operating expenses	27,874	-	27,874
<b>Total operating expenses</b>	<b>1,544,189</b>	<b>43,171</b>	<b>1,587,360</b>
<b>DEPRECIATION EXPENSE</b>	<b>740,879</b>	<b>-</b>	<b>740,879</b>
<b>OPERATING INCOME / (LOSS)</b>	<b>1,372,227</b>	<b>(43,171)</b>	<b>1,329,056</b>
<b>NON-OPERATING REVENUE (EXPENSES):</b>			
Interest expense	-	(1,244,459)	(1,244,459)
Cost of issuance	-	(18,846)	(18,846)
Net loss on retirement and impairment of capital assets	(18,815)	-	(18,815)
Subsidy income	-	174,606	174,606
Capital distribution	(39,627)	-	(39,627)
Investment income	294	49,854	50,148
Legal settlement	83,236	-	83,236
<b>NET INCOME / (LOSS) BEFORE CAPITAL CONTRIBUTIONS</b>	<b>1,397,315</b>	<b>(1,082,016)</b>	<b>315,299</b>
<b>CAPITAL CONTRIBUTION</b>	<b>9,799</b>	<b>-</b>	<b>9,799</b>
<b>CHANGE IN NET POSITION</b>	<b>1,407,114</b>	<b>(1,082,016)</b>	<b>325,098</b>
<b>NET POSITION (DEFICIT)—Beginning of year</b>	<b>12,506,497</b>	<b>(12,990,396)</b>	<b>(483,899)</b>
<b>NET POSITION (DEFICIT)—End of year</b>	<b>\$13,913,611</b>	<b>\$(14,072,412)</b>	<b>\$(158,801)</b>

See notes to combining financial statements.

## COMBINING STATEMENTS OF CASH FLOWS

For the year ended June 30, 2015 (in thousands):

## New York City

	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	TOTAL
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Receipts from customers	\$3,808,922	\$-	\$3,808,922
Payments for operations and maintenance	(1,584,165)	-	(1,584,165)
Payments for administration	(10,504)	(44,740)	(55,244)
<b>Net cash and cash equivalent provided by (used in) operating activities</b>	<b>2,214,253</b>	<b>(44,740)</b>	<b>2,169,513</b>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</b>			
Proceeds from issuing bonds, notes, and other borrowings—net of issuance costs	-	4,271,154	4,271,154
Acquisition and construction of capital assets	292	(1,385,419)	(1,385,127)
Payments by the Water Board to the Authority	(2,203,791)	2,203,791	-
Repayments of bonds, notes, and other borrowings	-	(4,057,850)	(4,057,850)
Interest paid on bonds, notes, and other borrowings	-	(1,078,573)	(1,078,573)
<b>Net cash and cash equivalents (used in) provided by capital and related financing activities</b>	<b>(2,203,499)</b>	<b>(46,897)</b>	<b>(2,250,396)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Sales and maturities of investments	167,401	264,650	432,051
Purchase of investments	(252,584)	(179)	(252,763)
Interest on investments	1,651	28,197	29,848
<b>Net cash and cash equivalents provided by investing activities</b>	<b>(83,532)</b>	<b>292,668</b>	<b>209,136</b>
<b>NET INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>(72,778)</b>	<b>201,031</b>	<b>128,253</b>
<b>CASH AND CASH EQUIVALENTS — Beginning of year</b>	<b>94,884</b>	<b>1,588,108</b>	<b>1,682,992</b>
<b>CASH AND CASH EQUIVALENTS — End of year</b>	<b>\$22,106</b>	<b>\$1,789,139</b>	<b>\$1,811,245</b>

See notes to combining financial statements.

(Continued)

## COMBINING STATEMENTS OF CASH FLOWS

For the year ended June 30, 2015 (in thousands):

	New York City		
	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	TOTAL
<b>RECONCILIATION OF OPERATING INCOME / (LOSS) TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</b>			
Operating income (loss)	\$1,216,851	\$(45,920)	\$1,170,931
Adjustments to reconcile operating income (loss) to net cash and cash equivalents provided by operating activities:			
Depreciation	1,023,906	-	1,023,906
Other operating expense paid for with bond proceeds	31,295	-	31,295
Pollution remediation expense	15,285	-	15,285
Changes in assets and liabilities:			
Pollution remediation liability	(19,971)	-	(19,971)
Receivables—net	30,443	-	30,443
Prepaid expense	-	(175)	(175)
Receivable from The City	(96,342)	-	(96,342)
Residual interest in sold liens	(5,479)	-	(5,479)
Accounts payable	(560)	1,355	795
Revenues received in advance	19,456	-	19,456
Refunds payable	(631)	-	(631)
Net cash provided by (used in) operating activities	<u>\$2,214,253</u>	<u>\$(44,740)</u>	<u>\$2,169,513</u>

The following are the noncash capital and related financing activities (in thousands):

- Interest expense includes the amortization of net (premium) and discount in the amount of \$64,557 in 2015
- Capital expenditures in the amount of \$500,587 had been incurred but not paid at June 30, 2015
- Principal forgiveness on 2010 ARRA BAN in the amount of \$217,521 was granted in 2015
- The Water Board received federal, state, and other capital contributions of \$5,978 in 2015
- The Water Board received capital contributions of \$292 in 2015 from Westchester County.

See notes to combining financial statements.

(Concluded)

## COMBINING STATEMENTS OF CASH FLOWS

For the year ended June 30, 2014 (in thousands):

	New York City		
	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	TOTAL
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Receipts from customers	\$3,695,515	\$-	\$3,695,515
Payments for operations and maintenance	(1,361,085)	-	(1,361,085)
Payments for administration	(23,574)	(42,873)	(66,447)
<b>Net cash and cash equivalent provided by (used in) operating activities</b>	<b>2,310,856</b>	<b>(42,873)</b>	<b>2,267,983</b>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</b>			
Proceeds from issuing bonds, notes, and other borrowings—net of issuance costs	-	4,570,035	4,570,035
Acquisition and construction of capital assets	292	(1,818,132)	(1,817,840)
Payments by the Water Board to the Authority	(2,296,121)	2,296,121	-
Repayments of bonds, notes, and other borrowings	-	(3,778,345)	(3,778,345)
Interest paid on bonds, notes, and other borrowings	-	(1,089,079)	(1,089,079)
<b>Net cash and cash equivalent (used in) provided by capital and related financing activities</b>	<b>(2,295,829)</b>	<b>180,600</b>	<b>(2,115,229)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Proceeds from sales and maturities of investments	707,519	92,365	799,884
Purchase of investments	(637,031)	(3,806)	(640,837)
Interest on investments	318	37,626	37,944
<b>Net cash and cash equivalent provided by investing activities</b>	<b>70,806</b>	<b>126,185</b>	<b>196,991</b>
<b>NET INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>85,833</b>	<b>263,912</b>	<b>349,745</b>
<b>CASH AND CASH EQUIVALENTS — Beginning of year</b>	<b>9,051</b>	<b>1,324,196</b>	<b>1,333,247</b>
<b>CASH AND CASH EQUIVALENTS — End of year</b>	<b>\$94,884</b>	<b>\$1,588,108</b>	<b>\$1,682,992</b>

See notes to combining financial statements.

(Continued)

## COMBINING STATEMENTS OF CASH FLOWS

For the year ended June 30, 2014 (in thousands):

	New York City		
	WATER BOARD	MUNICIPAL WATER FINANCE AUTHORITY	TOTAL
<b>RECONCILIATION OF OPERATING INCOME / (LOSS) TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</b>			
Operating income (loss)	\$1,372,227	\$(43,171)	\$1,329,056
Adjustments to reconcile operating income (loss) to net cash provided by operating activities:			
Depreciation	740,879	-	740,879
Legal settlement	83,236	-	83,236
Other operating expense paid for with bond proceeds	22,670	-	22,670
Pollution remediation expense	23,135	-	23,135
Changes in assets and liabilities—Net:			
Pollution remediation liability	(17,931)	-	(17,931)
Receivables—net	(31,432)	21	(31,411)
Prepaid expense	-	(211)	(211)
Receivable from The City	129,465	-	129,465
Residual interest in sold liens	(6,585)	-	(6,585)
Accounts payable	2,192	488	2,680
Revenues received in advance	(3,732)	-	(3,732)
Refunds payable	(3,268)	-	(3,268)
Net cash and cash equivalents provided by (used in) operating activities	<u>\$2,310,856</u>	<u>\$(42,873)</u>	<u>\$2,267,983</u>

The following are the noncash capital and related financing activities (in thousands):

- Interest expense includes the amortization of net (premium) and discount in the amount of \$51,771 in 2014.
- Capital expenditures in the amount of \$522,036 had been incurred but not paid at June 30, 2014.
- The Water Board received capital assets of \$9,507 in 2014 which represented capital contributed by The City.
- The Water Board received capital assets of \$293 in 2014 which represented capital contributed by Westchester County.

See notes to combining financial statements.

(Concluded)

# NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED JUNE 30, 2015 AND 2014

## 1. ORGANIZATION

The New York City Water and Sewer System (the “System”) provides water supply, treatment and distribution, and sewage collection, treatment, and disposal for The City of New York (“The City”). The System, as presented in the accompanying combining financial statements, began operations on July 1, 1985 and is a joint operation consisting of two legally separate and independent entities: the New York City Municipal Water Finance Authority (the “Authority”) and the New York City Water Board (the “Water Board”). The Authority is a public benefit corporation created in accordance with the New York City Municipal Water Finance Act (the “Act”), duly enacted into law as Chapter 513 of the laws of 1984 of the State of New York (the “State”), as amended by Chapter 514 of the laws of 1984 of the State of New York. The Water Board was created by Chapter 515 of the laws of 1984 of the State of New York. The Act empowers the Authority to issue bonds or notes to finance the cost of capital improvements to the System and to refund any and all outstanding bonds and general obligation bonds of The City issued for water and sewer purposes. The Act empowers the Water Board to lease the System from The City and to fix and collect rates, fees, rents, and other charges for the use of, or for services furnished, rendered, or made available by the System to produce cash sufficient to pay debt service on the Authority’s bonds and to place the System on a self-sustaining basis.

The Financing Agreement by and among The City of New York, New York City Municipal Water Finance Authority, and New York City Water Board dated as of July 1, 1985 (the “Agreement”) provides that the Authority will issue bonds to finance the cost of capital investment and related costs in the System serving The City. It also sets forth the funding priority for the debt service costs of the Authority, operating costs of the System, and the rental payment to The City.

The physical operation and capital improvements of the System are performed by The City’s Department of Environmental Protection (“DEP”) subject to contractual agreements with the Authority and the Water Board.

In accordance with Governmental Accounting Standards Board (“GASB”) standards, the Water Board and the Authority are considered to be part of the same reporting entity (the “System”) since they are fiscally interdependent. Accordingly, the accompanying combining financial statements for the System present the individual financial statements of the Water Board and the Authority as major funds. In addition, the accompanying combining financial statements present a total column, which represents the entity-wide financial statements of the System. Transactions and balances between the Water Board and the Authority are eliminated in the entity-wide combining financial statements.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the System have been prepared on the accrual basis of accounting. Revenues are recognized when earned and expenses are recognized when incurred. Other significant accounting policies are:

**Component Unit**—The System is a component unit of The City. The System leases the water and sewer related capital assets from The City, which is responsible for the operations, maintenance, and capital improvement of the System. The System reimburses The City for costs incurred for operations and maintenance and issues debt to pay for capital improvements.

**Investments and Cash Equivalents**—Investments and cash equivalents consist principally of securities of the United States and its agencies, certificates of deposit, guaranteed investment contracts, forward purchase agreements, and State of New York obligations.

All investments are carried at fair value with the exception of money market funds that are carried at cost plus accrued interest. For purposes of the statement of cash flows and statement of net position, the System generally considers all highly-liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Restricted Assets—Net Position Classification—**

Proceeds from the issuance of debt and monies set aside for debt service and operation and maintenance of the System are classified as restricted based on the requirements of the applicable bond indentures in the net position classification.

**Lien Sales and Residual Interest in Sold Liens—**The City periodically sells tax liens secured by water and sewer rents and surcharges, for which the Water Board receives the applicable sale proceeds. At the time of sale, the Water Board recognizes the proceeds as operating revenue and removes the related receivables. The Water Board maintains a residual interest in the liens, which represents the amount estimated to be received by the Water Board if and when liens held by the purchasing trusts generate cash flows above the amounts needed by the trusts to pay their operating costs, bondholders, and satisfy reserve requirements.

**Bond Discount and Premium—**Bond discount and premium are amortized over the life of the related bond issue, using the effective yield method of amortization for bond discount and premium.

**Utility Plant—**Utility plant acquired through purchase or internal construction is recorded at cost, net of retirements. It is the Water Board’s policy to capitalize assets with a cost of \$35,000 or more and a useful life of five years or longer. Contributed utility plant is recorded at its estimated historical cost based on appraisals or other methods when historical cost information is not available, net of depreciation. Depreciation is computed using the straight-line method based upon estimated useful lives, as follows:

ASSET	YEARS
Buildings	40-50
Water Supply and Wastewater Treatment Systems	15-50
Water Distributions and Sewage Collection Systems	15-75
Equipment	5-35
Vehicles	10

Maintenance and repairs of property are charged to maintenance expense. Replacements and betterments are recorded as additions to utility plant. The System pays for some improvements for assets that are not owned by The City or the System, as well as certain

pollution remediation activities, through bond proceeds. These costs are shown as other operating expenses in the combining statements of revenues, expenses, and changes in net position.

**Operating Revenues and Operating Expenses—**

Operating revenues consist of customer payments for services of the System. Revenues are based on billing rates imposed by the Water Board and upon customers’ water and sewer usage or, in some cases, characteristics of customer properties. The System records unbilled revenue at year-end based on meter readings collected as of June 30. Operating expenses include, but are not limited to maintenance, repair, and operations of the System; administration costs of the Water Board and the Authority; and rental payments to The City.

**Revenues Received in Advance—**Revenues received in advance of the period to which they relate are unearned and recorded as revenue when earned. Customer account credit balances are included in service credits on customer accounts, not in accounts receivable.

**Unamortized Deferred Bond Refunding Costs—**Deferred bond refunding costs represent the gains or losses incurred in advance and current refundings on refunded bonds. Gains or losses arising from debt refundings are deferred and amortized over the lesser of the remaining life of the old debt or the life of the new debt.

**Use of Estimates—**The preparation of the combining financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions in determining the amounts of assets, deferred outflows of resources, liabilities, deferred inflows of resources, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Pensions—**Pensions are required to be recognized and disclosed using the accrual basis of accounting, regardless of the amount recognized as pension expense on the modified accrual basis of accounting. The Authority recognizes a net pension liability for the pension plan in which it participates, which represents the Authority’s proportional share of excess total pension liability over the pension plan assets—actuarially

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

calculated—of a cost-sharing multiple-employer plan, measured as of the fiscal year-end. Changes in the net pension liability during the period are recorded as pension expense, or as deferred inflows of resources or deferred outflows of resources depending on the nature of the change, in the period incurred. Those changes in net pension liability that are recorded as deferred inflows of resources or deferred outflows of resources are amortized over the weighted average remaining service life of all participants in the qualified pension plan and recorded as a component of pension expense beginning with the period in which they are incurred. Projected earnings on qualified pension plan investments are recognized as a component (reduction) of pension expense. Differences between projected and actual investment earnings are reported as deferred inflows of resources or deferred outflows of resources and amortized as a component of pension expense on a closed basis over a five-year period beginning with the period in which the difference occurred.

The change in the Authority's proportion of the collective net pension liability and collective deferred outflow of resources and deferred inflow of resources related to the pension since the prior measurement date is recognized in the current reporting period over a closed period that is equal to the average of the expected remaining service lives of all employees provided with a pension through the pension plan. The amount not recognized in pension expense is reported as deferred outflow of resources or deferred inflow of resources related to the pension. For the contribution to the pension plan, the difference during the measurement period between the total amount of the Authority's contribution and the amount of the Authority's proportionate share of the total of such contributions from all employers and all nonemployee contributing entities is recognized in the Authority's pension expense, beginning in the current reporting period, over a closed period that is equal to the average of the expected remaining service lives of all employees provided with pension through the Plan. The amount not recognized in pension expense is reported as deferred outflow of resources or deferred inflow of resources related to the pension.

Differences between projected and actual investment earnings are reported as deferred inflows of resources or deferred outflows of resources and amortized as a

component of pension expense on a closed basis over a five-year period beginning with the period in which the difference occurred.

Changes in total pension liability arising from changes of benefit terms are required to be included in pension expense in the period the change is first reported in the net pension liability. The changes in the total pension liability resulting from: 1) differences between expected and actual experience with regard to economic and demographic factors and 2) changes of assumptions regarding the expected future behavior of economic and demographic factors or of other inputs, will be recognized as a deferred outflow of resources or a deferred inflow of resources related to the pension and included in the pension expense over a period equal to the average of the expected remaining service lives of all employees that are provided with benefits through the plan.

**Recent Accounting Pronouncements**—As a component unit of The City, the System implements new GASB standards in the same fiscal year as they are implemented by The City. The following are discussions of the standards requiring implementation in the current year and standards that may impact the System in future years.

In February 2015, GASB issued Statement No. 72, *Fair Value Measurement and Application* ("GASB 72"). GASB 72 defines fair value and describes how fair value should be measured, what assets and liabilities should be measured at fair value, and what information should be disclosed in the notes to the financial statements. The provisions of GASB 72 are effective for fiscal years beginning after June 15, 2015; however, the System has elected to adopt the standard early, during fiscal year 2015. Pursuant to GASB 72, the System has disclosed the hierarchy of valuation inputs and valuation techniques in its notes to the financial statements.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

In June 2015, GASB issued Statement No. 73, *Accounting and Financial Reporting for Pension and Related Assets That Are Not within the Scope of GASB 68, and Amendments to Certain Provision of GASB 67 and GASB 68* (“GASB 73”). GASB 73 provides guidance on assets accumulated for pension plans that are not administered through a trust and provides clarity on certain provisions of GASB 67 and GASB 68. The requirements for GASB 73 are effective for fiscal years beginning after June 15, 2015. The System has not completed the process of evaluating GASB 73, but the System does not expect GASB 73 to have an impact on its financial statements.

In June 2015, GASB issued Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* (“GASB 74”). GASB 74 establishes financial reporting standards to state and local governmental other postemployment benefit (“OPEB”) plans. The requirements of GASB 74 are effective for fiscal years beginning after June 15, 2016. The System has not completed the process of evaluating GASB 74. Upon adoption, the System expects GASB 74 to have an impact on its financial statements.

In June 2015, GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (“GASB 75”). GASB 75 establishes accounting and financial reporting standards for OPEB that are provided to employees of state and local governmental employers. The requirements of GASB 75 are effective for fiscal years beginning after June 15, 2017. The System has not completed the process of evaluating GASB 75. The System expects GASB 75 to have an impact on its financial statements.

In June 2015, GASB issued Statement No. 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments* (“GASB 76”). GASB 76 reduces the General Accepted Accounting Principles (“GAAP”) hierarchy to two categories of authoritative GAAP and addresses the use of authoritative and nonauthoritative literature in the event that the accounting treatment for a transaction or other event is not specified within the source of authoritative GAAP. The requirements of GASB 76 are effective for fiscal years beginning after June 15, 2015. The System has not completed the process of evaluating GASB 76, but the System does not expect GASB 76 to have an impact on its financial statements.

### 3. UTILITY PLANT

The following is a summary of utility plant activity for the fiscal years ended June 30, 2015 and 2014 (in thousands):

	BALANCE AT JUNE 30, 2013	ADDITIONS	DELETIONS	BALANCE AT JUNE 30, 2014	ADDITIONS	DELETIONS	BALANCE AT JUNE 30, 2015
<b>Nondepreciable assets/utility construction</b>	<b>\$9,063,048</b>	<b>\$1,691,543</b>	<b>\$3,941,983</b>	<b>\$6,812,608</b>	<b>\$1,298,030</b>	<b>\$3,552,413</b>	<b>\$4,558,225</b>
<b>Depreciable assets/utility plant in service:</b>							
Buildings	34,877	-	-	34,877	-	-	34,877
Equipment	2,211,487	1,222,623	-	3,434,110	340,318	-	3,774,428
Vehicles	157,118	7,453	18	164,553	126,792	-	291,345
Water supply and wastewater treatment systems and water distribution and sewage collection systems	26,470,360	2,719,695	189,984	29,000,071	3,085,303	10,058	32,075,316
<b>Total depreciable assets</b>	<b>28,873,842</b>	<b>3,949,771</b>	<b>190,002</b>	<b>32,633,611</b>	<b>3,552,413</b>	<b>10,058</b>	<b>36,175,966</b>
<b>LESS ACCUMULATED DEPRECIATION FOR:</b>							
Buildings	(21,189)	(1,317)	-	(22,506)	(1,316)	-	(23,822)
Equipment	(927,797)	(241,425)	-	(1,169,222)	(243,354)	-	(1,412,576)
Vehicles	(104,798)	(5,730)	(18)	(110,510)	(10,603)	-	(121,113)
Water supply and wastewater treatment systems and water distribution and sewage collection systems	(9,422,624)	(492,408)	(163,381)	(9,751,651)	(768,633)	(7,724)	(10,512,560)
<b>Total accumulated depreciation</b>	<b>(10,476,408)</b>	<b>(740,880)</b>	<b>(163,399)</b>	<b>(11,053,887)</b>	<b>(1,023,906)</b>	<b>(7,724)</b>	<b>(12,070,069)</b>
<b>Total utility plant in service—net</b>	<b>18,397,434</b>	<b>3,208,891</b>	<b>26,603</b>	<b>21,579,724</b>	<b>2,528,507</b>	<b>2,334</b>	<b>24,105,897</b>
<b>Total capital assets—net</b>	<b>\$27,460,482</b>	<b>\$4,900,434</b>	<b>\$3,968,586</b>	<b>\$28,392,332</b>	<b>\$3,826,537</b>	<b>\$3,554,747</b>	<b>\$28,664,122</b>

**Contributed Capital**—The System received federal, state, and other capital contributions of \$223.8 million and \$9.8 million in fiscal year 2015 and fiscal year 2014, respectively. Westchester County makes semi-annual capital contributions to compensate the System for constructing a water conduit that provides treated water to Westchester County.

#### 4. DEPOSITS AND INVESTMENTS

**Cash Deposits**—The System follows the New York City Banking Commission designations for the System’s bank depositories. The Commission consists of the Comptroller, the Mayor, and the Finance Commissioner of The City and uses independent bank rating agencies in part to assess the financial creditworthiness of each bank. The banking relationships are under constant operational and credit reviews. Each bank in which the System’s cash is deposited is required to have its

principal office in New York State and have capital stock, surplus, and undivided earnings aggregating at least \$100 million.

At June 30, 2015 and 2014, the cash deposit balances were \$801.6 million and \$912.3 million, respectively. Of these cash deposits, only \$750 thousand was covered by Federal depository insurance, and the remaining balance was uncollateralized as of June 30, 2015 and 2014.

Cash and cash equivalents, including restricted and unrestricted balances, were comprised of the following at June 30, 2015 and 2014 (in thousands):

	2015	2014
<b>RESTRICTED:</b>		
Cash	\$801,593	\$898,141
Cash equivalents	1,009,599	770,724
<b>Total restricted cash and cash equivalents</b>	<b>1,811,192</b>	<b>1,668,865</b>
<b>UNRESTRICTED:</b>		
Cash	53	14,127
<b>Total cash and cash equivalents</b>	<b>\$1,811,245</b>	<b>\$1,682,992</b>

**Investments**—Pursuant to the Water and Sewer General Revenue Bond Resolution (the “Resolution”) and the Authority’s investment guidelines, the Authority may generally invest in obligations of, or guaranteed by, the U.S. government, certain highly rated obligations of the State of New York, certain certificates of deposit, and similar instruments issued by highly rated commercial banks, certain highly rated corporate securities or commercial paper securities, certain repurchase agreements with highly rated institutions, certain investment agreements with

highly rated institutions, certain highly rated money market funds, and other certain highly rated municipal obligations. All the accounts held by the Water Board are invested as permitted by the Water Board’s investment guidelines and may include investments in obligations of, or guaranteed by, the U.S. government and certain repurchase agreements with highly rated institutions. The System invests funds that are not immediately required for operations, debt service, or capital project expenses and funds that are held for debt service and operations and maintenance reserves.

The System had the following investments at June 30, 2015 and 2014 (in thousands):

INVESTMENTS	2015	2014
U.S. Agencies securities	\$1,044,691	\$728,027
U.S. Treasury securities	226,317	140,676
New York State instrumentalities	67,198	330,717
Money market funds	-	79,176
Guaranteed Investment Contracts	106,093	106,607
Forward Purchase Agreements market value adjustment	34,509	33,763
<b>Total investments including cash equivalents</b>	<b>1,478,808</b>	<b>1,418,966</b>
Less amounts reported as cash equivalents	(1,009,599)	(770,724)
<b>Total investments</b>	<b>\$469,209</b>	<b>\$648,242</b>

**4. DEPOSITS AND INVESTMENTS (CONTINUED)**

**Fair Value Hierarchy**—The System categorizes its fair value measurements into the fair value hierarchy established by generally accepted accounting principles. The System has the following recurring fair value measurements as of June 30, 2015 and 2014 (in thousands):

<b>2015 Fair Value Measurement</b>				
JUNE 30, 2015	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL 1)	SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)	
<b>INVESTMENT BY FAIR VALUE LEVEL</b>				
Fixed income investments				
U.S. Treasury securities	\$226,317	\$-	\$226,317	\$-
U.S. Agencies securities	1,044,691	-	1,044,691	-
New York State instrumentalities	67,198	-	67,198	-
Guaranteed Investment Contract	106,093	-	106,093	-
Forward Purchase Agreements	34,509	-	34,509	-
<b>Total investments by fair value level</b>	<b>\$1,478,808</b>	<b>\$-</b>	<b>\$1,478,808</b>	<b>\$-</b>
<b>INVESTMENTS DERIVATIVE INSTRUMENTS</b>				
Interest rate swap (liability)	\$(103,182)	\$-	\$(103,182)	\$-
<b>Total investment derivative instruments</b>	<b>\$(103,182)</b>	<b>\$-</b>	<b>\$(103,182)</b>	<b>\$-</b>

<b>2014 Fair Value Measurement</b>				
JUNE 30, 2014	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL 1)	SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)	
<b>INVESTMENT BY FAIR VALUE LEVEL</b>				
Fixed income investments				
Money market funds	\$79,176	\$-	\$79,176	\$-
U.S. Treasury securities	140,676	-	140,676	-
U.S. Agencies securities	728,027	-	728,027	-
New York State instrumentalities	330,717	-	330,717	-
Guaranteed Investment Contract	106,607	-	106,607	-
Forward Purchase Agreements	33,763	-	33,763	-
<b>Total investments by fair value level</b>	<b>\$1,418,966</b>	<b>\$-</b>	<b>\$1,418,966</b>	<b>\$-</b>
<b>INVESTMENTS DERIVATIVE INSTRUMENTS</b>				
Interest rate swap (liability)	\$(79,997)	\$-	\$(79,997)	\$-
<b>Total investment derivative instruments</b>	<b>\$(79,997)</b>	<b>\$-</b>	<b>\$(79,997)</b>	<b>\$-</b>

Fixed income investments and derivative instruments classified in Level 2 of the fair value hierarchy are valued using matrix pricing technique.

**4. DEPOSITS AND INVESTMENTS (CONTINUED)**

**Credit Risk**—Both the Water Board and the Authority have Board approved investment guidelines and policies in place designed to protect principal by limiting credit risk. This is accomplished through ratings, collateral, and diversification requirements that vary according to the type of investment. Investments held by the System at June 30, 2015 and 2014 include obligations of, or guaranteed by, the United States of America, the Federal Home Loan Mortgage Corporation, the Federal Home Loan Bank, the Federal National Mortgage Association or the Federal Farm Credit System. Also held by the Authority are direct obligations of the State of New York, or direct obligations of any agency or public authority thereof, which are rated at the time of purchase in one of the two highest rating categories. In addition, the Authority has entered into investment agreements and guaranteed investment contracts with financial institutions whose long-term debt obligations, or whose

obligations under such an investment agreement or guaranteed investment contract, are guaranteed by a financial institution whose senior long-term debt obligations have a rating in one of the two highest rating categories for comparable types of obligations by each rating agency at the time such agreement or contract was entered into.

**Interest Rate Risk**—The System has no formal policy relating to interest rate risk. Approximately 30.0% of the System’s investments are agreements to purchase securities or Guaranteed Investment Contracts (“GICs”) with guaranteed fixed rates of return. The par value of the agreements to purchase securities and interest earned are held as cash on June 30, 2015. The fair value of the agreements to purchase securities are themselves susceptible to changes in market rates because of the interest rates.

Segmented Time Distribution on Investments and Cash Equivalents at June 30, 2015 (in thousands):

<b>MATURITY DATE</b>	<b>FAIR VALUE AMOUNT (in thousands)</b>
Under 6 months	\$1,022,210
Over 6 months to 1 year	34,402
Over 1 year to 3 years	248,123
Over 3 years and beyond	33,471
Over 3 years and beyond (GIC and Forward Purchase Agreement adjustments) <sup>1</sup>	140,602
<b>Total</b>	<b>\$1,478,808</b>

<sup>1</sup>Includes the fair value of \$34,509 related to Forward Purchase Agreements and \$106,093 related to a GIC agreement.

**Custodial Credit Risk**—For an investment, custodial credit risk is the risk that, in the event of the failure of the custodian, the System may not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the System, and are held by either the counterparty or the counterparty’s trust department or agent but not in the name of the System. All investments held by the Water Board’s custodian bank were registered in the Water Board’s name and therefore were not subjected to custodial credit risk. All of the Authority’s investments

were held by the Trustee in the Trustee’s name and therefore were exposed to custodial credit risk, except for the GIC.

As of June 30, 2015 and 2014, the Authority had \$1,146.4 million and \$1,171.7 million of investments, respectively, that were subjected to custodial credit risk. The types and amounts of investments exposed to custodial credit risk are listed in the table on page 35, except for the Authority’s GIC of \$106.1 million and \$106.6 million in 2015 and 2014, respectively, and the Water Board’s U.S. Treasury securities of \$226.3 million and \$140.7 million in 2015 and 2014, respectively.

## 5. DERIVATIVE INSTRUMENTS

As of June 30, 2015, the Authority had the following (in thousands):

TYPE	NOTIONAL AMOUNT	EFFECTIVE DATE	MATURITY DATE	TERMS	FAIR VALUE	COUNTERPARTY CREDIT RATING (MOODY'S/S&P/FITCH)
<b>Hedging Derivatives</b>						
Synthetic fixed rate	\$240,600	10/24/07	6/15/36	Pay 3.439% receive 67% of 1-month LIBOR	\$(61,909)	Aa2/AAA/NR
Synthetic fixed rate	160,400	10/24/07	6/15/36	Pay 3.439% receive 67% of 1-month LIBOR	(41,273)	A1/A/A+

**Hedging Derivative Instruments**—The Authority executed two interest rate exchange agreements (the “synthetic fixed rate agreements”), effective October 24, 2007, in conjunction with its sale of \$401 million of Adjustable Rate Fiscal 2008 Series BB Second Resolution Bonds on October 24, 2007. Under these agreements, the Authority pays a fixed interest rate of 3.439% in exchange for a floating rate based on 67% of one-month LIBOR on the combined notional amount of \$401 million. The agreements are with two separate counterparties: one agreement in the amount of \$240.6 million and the second agreement in the amount of \$160.4 million. These agreements allowed the Authority to achieve a fixed rate cost lower than conventional fixed rate debt at the time of issuance. The Authority’s obligations under these interest rate exchange agreements are payable on a parity with the related second resolution revenue bonds.

**Credit Risk**—The Authority is exposed to the risk that the counterparties (or their guarantors) will default under its agreement. Under the synthetic fixed rate agreements, the Authority has the right to terminate the swap, regardless of collateral posting, if a counterparty’s ratings fall below both A3 by Moody’s and A- by Standard & Poor’s.

The counterparties must post collateral if their ratings fall below A3 by Moody’s or A- by Standard and Poor’s or the mark-to-market value exceeds specified thresholds.

Even in the absence of a significant credit rating downgrade, the Authority may exercise its right to assign the agreements to another counterparty to mitigate counterparty risk.

**Termination Risk**—The counterparties can terminate the agreements when the mark-to-market value is such that the Authority would owe a termination payment to the counterparty. The counterparties may terminate the agreement only upon the occurrence of certain events, such as payment defaults by the Authority, other defaults which remain uncured for 30 days after notice, bankruptcy or insolvency of the Authority (or similar events), or a downgrade of the Authority’s credit rating below BBB-/Baa3.

**Basis Risk**—The Authority is exposed to basis risk on its synthetic fixed rate agreements. The amount the Authority receives under the synthetic fixed rate exchange agreement may be lower than the average monthly variable interest paid on the bonds associated with the agreements, which would require the Authority to make up the shortfall.

**Interest Rate Risk**—The Authority is exposed to the risk that changes in interest rates will adversely affect the fair values of the Authority’s financial instruments or cash flows. The fixed rate paid by the Authority on its synthetic fixed rate agreements may exceed the rate received (67% of LIBOR).

**Financial Statements Effect**—The market value of derivatives at June 30, 2015 and June 30, 2014 was negative \$103.2 million and negative \$80.0 million, respectively. The Authority does not currently own investment derivatives.

**6. LEASE AGREEMENT**

The Water Board is party to a long-term lease (the “Lease”) with The City, which transfers the water and sewer related property to the Water Board for the term of the Lease. The Lease term commenced on July 1, 1985, and continues until the later of the fortieth anniversary of the commencement of the lease or the date on which all bonds, notes, or other obligations of the Authority are paid in full or provision for such payment has been made pursuant to the applicable debt instrument. The Lease provides for payments to The City to cover the following:

- a. an amount sufficient to pay the cost of administration, maintenance, repair, and operation of the leased property, which includes overhead costs incurred by The City that are attributable to the leased property, net of the amount of any federal, state, or other operating grants received by The City, and

- b. an amount sufficient to reimburse The City for capital costs incurred by The City for the construction of capital improvements to the leased property that are not paid or reimbursed from any other source.

In addition to the payments described above, the Water Board pays rent to The City each fiscal year in an amount not to exceed the greater of 1) the principal and interest payable on general obligation bonds issued by The City for water and sewer purposes certified by The City to be paid within such fiscal year or 2) 15% of principal and interest payable on the bonds of the Authority to be paid within such fiscal year. A summary of operation and maintenance and rental expenses for the years ended June 30, 2015 and 2014, is as follows (in thousands):

	<b>2015</b>	<b>2014</b>
Water supply, treatment, transmission, and distribution	\$475,663	\$478,305
Sewer collection and treatment systems	487,268	507,986
City agency support cost	64,073	64,025
Fringe benefits	186,664	212,507
Judgments and claims	<u>20,167</u>	<u>13,727</u>
<b>Operation and maintenance</b>	<b><u>1,233,836</u></b>	<b><u>1,276,550</u></b>
Rental payments to The City	<u>205,579</u>	<u>214,000</u>
<b>Total operations maintenance and rental payments</b>	<b><u>\$1,439,415</u></b>	<b><u>\$1,490,550</u></b>

**7. PAYABLE TO AND RECEIVABLE FROM THE CITY**

As of June 30, 2015 and 2014, all utility construction and other projects financed by the Authority debt and recorded by the System which have not been reimbursed to The City are recorded as a payable to The City. The Authority had a payable to The City of \$500.6 million and \$522.0 million, respectively, net of the amount of State or federal and other capital grants recognized by The City.

As of June 30, 2015 and 2014, the Water Board had receivables due from The City of \$119.8 million and \$23.4 million, respectively. The 2015 receivable from The City is a result of an over payment of \$25.4 million for rental and \$94.4 million for operations and maintenance expense. The 2014 receivable from The City is a result of an over payment of \$27.0 million for rental and the under payment of \$3.6 million for operations and maintenance expense.

## 8. OTHER OPERATING EXPENSES

A summary of other operating expenses for the year ended June 30, 2015 and 2014, is as follows (in thousands):

	2015	2014
Pollution remediation	\$(4,686)	\$5,204
Payments for watershed improvements	24,419	22,670
Other expense	25,554	-
Program expense	32,431	-
<b>Total other operating expenses</b>	<b>\$77,717</b>	<b>\$27,874</b>

The City's Department of Environmental Protection ("DEP") manages both the System's operations and its capital program, and it also manages other projects with long-term benefits to the System which do not result in capital assets of the System and that are paid for using Authority bond proceeds. Such long-term benefit projects include payment for environmental protection, related improvement in the watershed areas, and pollution remediation projects throughout the System. In fiscal year 2015, The System made a payment of \$25.5 million to The City for outstanding balances and incurred program expenses of \$32.4 million.

## 9. SHORT-TERM DEBT

In fiscal year 2015 and 2014, the changes in short-term debt were as follows (in thousands):

	BALANCE AT JUNE 30, 2013	ADDITIONS	DELETIONS	BALANCE AT JUNE 30, 2014	ADDITIONS	DELETIONS	BALANCE AT JUNE 30, 2015
Commercial Paper <sup>1</sup>	\$500,000	\$1,375,000	\$1,375,000	\$500,000	\$800,000	\$700,000	\$600,000
Bond Anticipation Notes <sup>2</sup>	217,521	-	217,521	-	-	-	-
<b>Total short-term payable</b>	<b>\$717,521</b>	<b>\$1,375,000</b>	<b>\$1,592,521</b>	<b>\$500,000</b>	<b>\$800,000</b>	<b>\$700,000</b>	<b>\$600,000</b>

<sup>1</sup> Commercial paper and Bond Anticipation Notes are used to pay construction costs in advance of long-term bond financing.

<sup>2</sup> Bond Anticipation Notes with maturity greater than 1 year are not included.

Commercial paper activity is comprised of the following for the year ended June 30, 2015 (in thousands):

	BALANCE AT JUNE 30, 2014	ISSUED	RETIRED	BALANCE AT JUNE 30, 2015
Commercial Paper Series 1— Variable Rate, Short-term Rolling Maturity Backed by Line of Credit	\$200,000	\$200,000	\$200,000	\$200,000
Commercial Paper Series 7— Variable Rate, Short-term Rolling Maturity	100,000	300,000	200,000	200,000
Commercial Paper Series 8— Variable Rate, Short-term Rolling Maturity	200,000	300,000	300,000	200,000
<b>Total commercial paper payable</b>	<b>\$500,000</b>	<b>\$800,000</b>	<b>\$700,000</b>	<b>\$600,000</b>

**10. LONG-TERM DEBT**

In fiscal years 2015 and 2014, the long-term debt was as follows (in thousands):

<b>BONDS PAYABLE</b>	<b>BALANCE AT JUNE 30, 2014</b>	<b>ADDITIONS</b>	<b>DELETIONS</b>	<b>BALANCE AT JUNE 30, 2015</b>
First resolution	\$6,609,271	\$-	\$2,574,620	\$4,034,651
Second resolution	23,064,612	3,181,149	907,790	25,337,971
<b>Total before premium and discounts</b>	<b>29,673,883</b>	<b>3,181,149</b>	<b>3,482,410</b>	<b>29,372,622</b>
Premium/(discounts)—net	762,827	307,003	109,109	960,721
<b>Total debt</b>	<b>30,436,710</b>	<b>\$3,488,152</b>	<b>\$3,591,519</b>	<b>30,333,343</b>
Due within one year	291,955			391,462
<b>Total long-term debt</b>	<b>\$30,144,755</b>			<b>\$29,941,881</b>

<b>BONDS PAYABLE</b>	<b>BALANCE AT JUNE 30, 2013</b>	<b>ADDITIONS</b>	<b>DELETIONS</b>	<b>BALANCE AT JUNE 30, 2014</b>
First resolution	\$7,321,055	\$-	\$711,785	\$6,609,271
Second resolution	21,455,330	3,042,066	1,432,784	23,064,612
<b>Total before premium and discounts</b>	<b>28,776,385</b>	<b>3,042,066</b>	<b>2,144,569</b>	<b>29,673,883</b>
Premium/(discounts)—net	658,859	172,141	68,173	762,827
<b>Total debt</b>	<b>29,435,244</b>	<b>\$3,214,207</b>	<b>\$2,212,742</b>	<b>30,436,710</b>
Due within one year	570,654			291,955
<b>Total long-term debt</b>	<b>\$28,864,590</b>			<b>\$30,144,755</b>

The debt program of the Authority includes commercial paper, long-term debt, BANs, and subsidized bonds issued through EFC. The commercial paper program is the main source of financing to reimburse The City for payments made for water and sewer projects. The Authority then issues long-term debt in the public market or through EFC to retire outstanding commercial paper. The Authority also periodically issues refunding bonds to refinance higher-coupon debt. With respect to all Authority debt, the Water Board has agreed to maintain rates and charges to provide revenues at levels sufficient to pay principal and interest requirements as well as to meet certain debt service coverage and operating cost funding requirements. All series of debt are specific obligations of the Authority payable solely from and secured by a pledge of and lien on the gross revenue of the System, as defined.

As part of the American Recovery and Reimbursement Act of 2009, the System received funding through EFC of \$217.5 million for certain eligible projects.

Each project included was tracked for spending, and funding was received from EFC after submission of required documentation. The funding was in the form of a BAN payable by the Authority. As of June 30, 2015 the total \$217.5 million BAN was forgiven by EFC after the note was fully drawn and the financed projects were completed. Consequently, the note was removed from long-term liability.

In addition, the System received funding through EFC of \$320 million for certain projects. Each project included was tracked for spending, and funding was received from EFC after submission of required documentation. The funding is in the form of a BAN payable by the Authority. The total spent as of June 30, 2015 was \$320 million. Based on the maturity date, the note is a long-term liability.

**10. LONG-TERM DEBT (CONTINUED)**

The System will also receive funding through EFC of \$30 million for certain other projects. Each project is tracked for spending and funding is received from EFC after submission of required documentation. The funding is in the form of a BAN payable by the Authority. The entire \$30 million note is expected to be forgiven by EFC after the note is fully drawn and the financed projects are completed. The total spent as of June 30, 2015 is \$14.2 million. Based on the maturity date, the note is a long-term liability.

During fiscal year 2015, the Authority issued \$2.0 billion of bonds to refund \$2.2 billion of outstanding bonds. These refundings resulted in an accounting gain of \$23.1 million. The Authority in effect reduced its aggregate debt service for principal and interest by \$512.6 million and obtained an economic benefit (present value savings) of \$344.7 million.

- On September 24, 2014, the Authority issued \$300 million of refunding tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series DD. The bonds refunded portions of the Authority's First Resolution bonds, Fiscal 2005 Series B in the amount of \$329.5 million. The refunding bonds included bonds maturing in 2028, 2029, and 2036. The Authority in effect reduced its aggregate debt service for principal and interest by \$59.8 million. As a result, the Authority obtained an economic gain of \$38.9 million.
- On November 20, 2014, the Authority issued \$392.1 million of refunding and new money tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series EE. The new money bonds included a bond maturing in 2045. The refunding bonds refunded portions of the Authority's First Resolution bonds, Fiscal 2005 Series B in the amount of \$279.2 million. The refunding bonds included bonds maturing in 2028, 2029, and 2036. The Authority in effect reduced its aggregate debt service for principal and interest by \$57.3 million. As a result, the Authority obtained an economic gain of \$40.2 million.
- On March 17, 2015, the Authority issued \$530.0 million of refunding tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series FF. The bonds refunded portions of the Authority's First

Resolution bonds, Fiscal 2005 Series C, Fiscal 2005 Series D, and Fiscal 2006 Series A in the amount of \$593.9 million. The refunding bonds included bonds maturing from 2025 to 2037 and a bond maturing in 2039. The Authority in effect reduced its aggregate debt service for principal and interest by \$146.6 million. As a result, the Authority obtained an economic gain of \$102.2 million.

- On April 9, 2015, the Authority issued \$450.3 million of refunding tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series GG. The bonds refunded portions of the Authority's First Resolution bonds, Fiscal 2005 Series C, Fiscal 2005 Series D, and Fiscal 2006 Series A in the amount of \$525.7 million. The refunding bonds included bonds maturing from 2025 to 2039. The Authority in effect reduced its aggregate debt service for principal and interest by \$143.6 million. As a result, the Authority obtained an economic gain of \$94.7 million.
- On May 28, 2015, the Authority issued \$452.5 million of refunding tax-exempt fixed rate Second Resolution bonds, Fiscal 2015 Series HH. The bonds refunded portions of the Authority's First Resolution bonds, Fiscal 2005 Series C, Fiscal 2005 Series D, and Fiscal 2006 Series A in the amount of \$505.6 million. The refunding bonds included bonds maturing from 2025 to 2039. The Authority in effect reduced its aggregate debt service for principal and interest by \$105.3 million. As a result, the Authority obtained an economic gain of \$68.7 million.

During fiscal year 2015, the Authority legally defeased \$739.1 million of outstanding bonds using current revenue. This resulted in an accounting loss of \$59.0 million that is included in interest expense.

During fiscal year 2014, the Authority issued \$1.3 billion of bonds to refund \$1.4 billion of outstanding bonds. These refundings resulted in an accounting gain of \$3.7 million. The Authority in effect reduced its aggregate debt service for principal and interest by \$202.4 million and obtained an economic benefit (present value savings) of \$144.8 million.

**10. LONG-TERM DEBT (CONTINUED)**

During fiscal year 2014, the Authority legally defeased \$360.8 million of outstanding bonds using current revenue. This resulted in an accounting loss of \$14.2 million that is included in interest expense.

The Authority has legally defeased cumulatively \$20.8 billion and \$17.9 billion of outstanding bonds as of June 30, 2015 and 2014, respectively, that had been issued in the public market and to EFC by placing proceeds of refunding bonds issued in an irrevocable escrow

account to provide for all future debt service payments on defeased bonds. Proceeds were used to purchase U.S. Government securities that were placed in the irrevocable escrow account. Accordingly, the escrow account assets and liabilities for the defeased bonds are not included in the System’s combining financial statements. As of June 30, 2015 and 2014, \$17.3 billion and \$14.9 billion of the Authority’s defeased bonds, respectively, have been retired using the assets of the escrow accounts.

Debt service requirements to maturity, including amounts relating to BANs, at June 30, 2015, are as follows (in thousands):

<b>JUNE 30</b>	<b>PRINCIPAL</b>	<b>INTEREST<sup>1</sup></b>	<b>TOTAL</b>
2016	\$391,462	\$1,330,348	\$1,721,810
2017	751,099	1,374,437	2,125,536
2018	465,301	1,357,928	1,823,229
2019	456,999	1,339,306	1,796,305
2020	442,271	1,321,131	1,763,402
2021-2025	2,629,066	6,317,138	8,946,204
2026-2030	3,442,746	5,629,267	9,072,013
2031-2035	4,524,083	4,722,192	9,246,275
2036-2040	5,780,555	3,542,989	9,323,544
2041-2045	7,419,705	1,841,585	9,261,290
2046-2050	<u>3,069,335</u>	<u>352,726</u>	<u>3,422,061</u>
	<b>\$29,372,621</b>	<b>\$29,129,046</b>	<b>\$58,501,669</b>

<sup>1</sup> Includes interest for variable rate bonds at 3.0% for fiscal year 2016 and 4.25% for fiscal year 2017 and thereafter. Variable rate bonds are remarketed daily or weekly and interest rates are determined by the market on the day of sale.

**11. RESTRICTED ASSETS**

As of June 30, 2015 and 2014, certain cash, investments, and accrued interest of the System are restricted as follows (in thousands):

	<b>2015</b>	<b>2014</b>
<b>THE WATER BOARD:</b>		
Operation and maintenance reserve fund	\$226,383	\$221,440
Local water fund	21,992	-
<b>Subtotal—The Water Board</b>	<b>248,375</b>	<b>221,440</b>
<b>THE AUTHORITY:</b>		
Revenue fund	989,694	970,959
Debt service reserve fund	639,119	895,661
Construction fund	368,300	192,567
Escrow account	34,913	36,480
<b>Subtotal—The Authority</b>	<b>2,032,026</b>	<b>2,095,667</b>
<b>Total restricted assets</b>	<b>\$2,280,401</b>	<b>\$2,317,107</b>

The operation and maintenance reserve fund is established as a depository to hold the operations and maintenance reserve as required by the Resolution. At June 30 of each year, it is required to hold one-sixth of the operating expenses as set forth in the following year’s annual budget. It is funded through the cash receipts of the Water Board. The operation and maintenance reserve general account is established as a depository to hold all excess funds of the Water Board after all legally mandated transfers have been made. It is available to meet any deficiencies in the flow of funds, including debt service and alternatively can be used as a financing source for capital expenditures.

The revenue fund is established as a depository to fund the debt service, Authority expenses, and debt service reserve and escrow funds. It is funded through cash transfers from the Water Board. The debt service reserve fund is established as a depository to hold the First Resolution Bond maximum annual debt service requirement for the next or any future fiscal year. It is funded through revenue bond proceeds and the revenue fund.

The debt service fund is established as a depository to pay all principal and interest payments on the Authority’s debt for the current fiscal year. It is funded through the revenue fund. The construction fund is established as a depository to pay all capital construction costs incurred by The City and reimbursed by the Authority. It is funded through the proceeds of commercial paper, bond, and note sales. The escrow account is established as a depository to refund debt in future years. It is funded through bond proceeds or the revenue fund.

## 12. COMMITMENTS AND CONTINGENCIES

**Construction**—The System has contractual commitments of approximately \$5.1 billion and \$4.3 billion at June 30, 2015 and 2014, respectively, for water and sewer projects.

**Risk Financing Activities**—The System is self-insured and carries no commercial or insurance policies other than Directors and Officers insurance for the Authority. Any claims made against the System are resolved through The City's legal support, and the amounts of the maximum liability for such judgments are described in the Claims and Litigation section below. The System is subject to claims for construction delays, property damage, personal injury, and judgments related to delays in construction deadlines under consent agreements.

**Claims and Litigation**—In accordance with the Lease, the Water Board is required to reimburse The City for any judgment or settlement paid by The City arising out of a tort claim to the extent that The City's liability is related to capital improvements and the operation or maintenance of the System. However, in no event shall the payment made to The City, in any fiscal year, exceed an amount equal to 5% of the aggregate revenues shown on the prior year's audited financial statements of the System. In addition, the System is required to reimburse The City, to the extent requested by The City, for the payment of any judgment or settlement arising out of a contract claim with respect to the construction of capital improvements of the System. In addition, The City has agreed, subject to certain conditions, to indemnify the Authority, the Water Board, and their staffs against any and all liability in connection with any act done or omitted in the exercise of their powers, which is taken or omitted in good faith in pursuance of their purposes under the Act. Currently, The City is a defendant in a significant number of lawsuits pertaining to the System. The litigation includes, but is not limited to, actions commenced and claims asserted against The City

arising out of alleged torts, alleged breaches of contract, condemnation proceedings, and other alleged violations of law. As of June 30, 2015, the potential future liability attributable to the System for claims outstanding against The City was estimated to be \$662.0 million. This amount is included in the estimated liability for unsettled claims, which is reported in The City's statement of net position. The potential future liability is The City's best estimate based on available information. The estimate may be revised as further information is obtained and as pending cases are litigated.

**Arbitrage Rebate**—To maintain the exemption from federal income tax of interest on bonds issued subsequent to January 1, 1986, the System will fund amounts required to be rebated to the Federal Government pursuant to Section 148 of the Internal Revenue Code of 1986, as amended (the "Code"). The Code requires the payment to the United States Treasury of the excess amount earned on all non-purpose obligations over the amount that would have been earned if the gross proceeds of the issue were invested at a rate equal to the yield on the issue, together with any earnings attributable to such excess. Construction funds, debt service funds, or any other funds or accounts funded with proceeds of such bonds, including earnings, or pledged to or expected to be used to pay interest on such bonds, are subject to this requirement. Payment is to be made after the end of the fifth bond year and after every fifth bond year thereafter, and within 60 days after retirement of the bonds. During fiscal 2015 and 2014, the System paid \$479.5 thousand and \$197 thousand, respectively, in arbitrage rebates. At June 30, 2015 and 2014, the Authority had a liability of \$2.5 million and \$2.7 million, respectively. These amounts are included in accrued payable expense in the combining statements of net position.

### 13. PENSION PLANS

#### GENERAL INFORMATION ABOUT THE PENSION PLAN

**Plan Description**—The Authority’s eligible employees are provided with pension benefits through New York City Employee Retirement System Qualified Pension Plan (“NYCERS QPP” or “Pension Plan”). The Pension Plan is a cost-sharing, multiple-employer defined pension plan administered by NYCERS. The Pension Plan functions in accordance with existing State statutes and City laws which are the basis by which benefit terms and the Authority’s and its member’s contribution requirements are established and amended. NYCERS issues a publicly available financial report that can be obtained at [www.nycers.org](http://www.nycers.org).

**Benefits Provided**—The Pension Plan provides pension benefits to retired employees generally based on the salary, length of service, member contributions, and membership tier (“Tier”). For certain members, voluntary member contributions also impact pension benefits provided. In addition, the Pension Plan provides automatic cost-of-living-adjustments (“COLA”) and other supplemental pension benefits to certain retirees and beneficiaries. Subject to certain conditions, members become fully vested as to benefits upon the completion of five years of service. Upon termination of employment before retirement, certain members are entitled to refunds of their own contributions, including accumulated interest, less any outstanding loan balances. In the event of disability during employment, participants may receive retirement allowances based on satisfaction of certain service requirements and other provisions. The Pension Plan also provides death benefits.

The State Constitution provides that pension rights of public employees are contractual and shall not be diminished or impaired. In 1973, 1976, 1983, and 2012, significant amendments made to the State Retirement and Social Security Law (“RSSL”) modified certain benefits for employees joining the Pension Plan on or after the effective date of such amendments, creating membership tiers. Currently there are several Tiers, referred to as Tier I, Tier II, Tier III, Tier IV, and Tier VI. Members are assigned a Tier based on membership date. Chapter 18 of the Laws of 2012 (Chapter 18/12) amended the retirement benefits of public employees who establish membership in the Pension Plan on or after April 1, 2012. Chapter 18/12 is commonly referred to

as Tier VI. Tier VI is expected to reduce future employer pension contributions.

Certain members of Tier I and Tier II of the NYCERS QPP have the right to make voluntary excess contributions, which are supplemental voluntary contributions. Members can elect to direct these contributions to an investment program under which such accumulated contributions are credited with interest at rates set by statute (“Statutory Rates”). The Authority does not have any Tier I or Tier II members.

**Contributions and Funding Policy**—Contribution requirements of participating employers and active members are determined in accordance with State statutes and City laws and are generally funded within the appropriate fiscal year. Effective with fiscal year 2006, employer contributions are actuarially determined under the One-Year Lag Methodology (“OYLM”). Under OYLM, the actuarial valuation date is used for calculating the employer contributions for the second following fiscal year. For example, the June 30, 2013 actuarial valuation was used for determining the fiscal year 2015 statutory contributions. Member contributions vary by class. In general, Tier III and Tier IV members make basic contributions of 3.0% of salary regardless of age at membership. Effective October 1, 2000, in accordance with Chapter 126 of the Laws of 2000, Tier III and Tier IV members are not required to make any contributions after the 10th anniversary of their membership date or completion of 10 years of credited service, whichever is earlier. Tier VI members who joined between April 1, 2012 and March 31, 2013 contribute 3% of salary. Beginning April 1, 2013, when Tier VI took effect, joining members contribute between 3.0% and 6.0% of salary, depending on their salary level.

Employer contributions are determined annually to be an amount that, together with member contributions and investment income, provides for Pension Plan assets to be sufficient to pay benefits when due. The aggregate statutory contribution due to NYCERS from all participating employers for fiscal years 2015 and 2014 was \$3.2 billion and \$3.1 billion, respectively and the amount of the Authority’s contribution to the Pension Plan for such fiscal years 2015 and 2014 was \$161 thousand and \$141 thousand, respectively.

**13. PENSION PLANS (CONTINUED)**

**INFORMATION ON THE EMPLOYER’S PROPORTIONATE SHARE OF THE COLLECTIVE NET PENSION LIABILITY**

The Authority’s net pension liabilities reported at June 30, 2015 and 2014 were measured as of those fiscal year-end dates. The total pension liability used to calculate those net pension liabilities was determined by actuarial valuations as of June 30, 2013 and June 30, 2012, respectively, based on the OYLM described above, and rolled forward to the respective fiscal year-end measurement dates. Information about the Authority net position and additions to and deductions from NYCERS fiduciary net position has been determined on the same basis as that reported by NYCERS QPP. For this purpose,

benefits and refunds are recognized when due and payable in accordance with the terms of the respective qualified pension plan, and investments are reported at fair value.

**Actuarial Assumptions**—Measurement of the total net pension liability, on which the net pension liability is based, requires the use of assumptions about numerous future events that affect the benefit payments that will be made to employees in retirement. The following table provides a brief description of the significant assumptions used in the June 30, 2013 actuarial valuation to determine the fiscal year 2015 Authority contributions:

**ACTUARIAL ASSUMPTIONS USED FOR DETERMINING FINAL FISCAL YEAR 2015 AUTHORITY’S CONTRIBUTIONS**

ITEM	FINAL FISCAL YEAR 2015 AUTHORITY’S CONTRIBUTIONS <sup>1</sup>
Valuation Date	June 30, 2013 (Lag)
Assumed Rate of Return on Investment <sup>2</sup>	7.0% per annum, net of investment expense. Actual return for variable funds.
Post-Retirement Mortality	Tables adopted by the Board of Trustees during fiscal year 2012 <sup>3</sup>
Active Service: Withdrawal, Death, Disability	Tables adopted by the Board of Trustees during fiscal year 2012 <sup>3</sup>
Retirement	Tables adopted by the Board of Trustees during fiscal year 2012 <sup>3</sup>
World Trade Center Benefit	Estimates of certain obligations.
Salary Increases <sup>2</sup>	Tables adopted by the Board of Trustees during fiscal year 2012 <sup>3</sup> In general, Merit and Promotion Increases plus assumed General Wage Increase of 3.0% per year.
Assumed Cost-of-Living Adjustments <sup>2</sup>	1.5% per year for Tier I, Tier II, Tier IV, and certain Tier III and Tier VI retirees. 2.5% per year for certain Tier III and Tier VI retirees.
Liability Loads	Estimates of certain obligations. <sup>3</sup>

<sup>1</sup> Based on actuarial assumptions and methods proposed by the Actuary during fiscal year 2012 adopted by the Board of Trustees and enacted into law as Chapter 3/13.

<sup>2</sup> Developed using a long-term Customer Price Inflation (CPI) assumption of 2.5% per year.

<sup>3</sup> See the Reports entitled “Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Year Beginning on and After July 1, 2011” dated February 10, 2012 (the “Silver Books”).

**13. PENSION PLANS (CONTINUED)**

In accordance with the Administrative Code of The City of New York and with appropriate practice, the NYCERS Board of Trustees’ of the actuarially-funded Pension Plan is to periodically review and adopt certain actuarial assumptions as proposed by the Actuary for use in the determination of Employer Contributions, which are also generally used to determine the total pension liability, as applicable. Based, in part, upon a review of the then two most recent experience studies, the Actuary issued reports for the Pension Plan proposing changes in actuarial assumptions and methods for fiscal years beginning on and after July 1, 2011 (February 2012 Reports). Where required, the Board of Trustees of NYCERS adopted those changes to actuarial assumptions that required NYCERS Board of Trustees’ approval. The State Legislature and the Governor enacted Chapter 3/13 to provide for those changes to

the actuarial assumptions and methods that require legislation, including the actuarial interest rate (“AIR”) assumption of 7.0% per annum, net of expenses.

The long-term expected rate of return of 7.0% was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

<b>ASSET CLASS</b>	<b>TARGET ASSET ALLOCATION</b>	<b>LONG-TERM EXPECTED REAL RATES OF RETURN</b>
U.S. Public Market Equities	32.6%	6.6%
International Public Market Equities	10.0	7.0
Emerging Public Market Equities	6.9	7.9
Private Market Equities	7.0	9.9
Fixed Income (Core, TIPS, HY, Opportunistic, Convertibles)	33.5	2.7
Alternatives (Real Assets, Hedge Funds)	10.0	4.0
<b>Total</b>	<b>100.0%</b>	

**Discount Rate**—The discount rate used to measure the total pension liability of the Pension Plan as of June 30, 2015 and 2014 was 7% per annum. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the rates applicable to the current Tier for each member and that employer contributions will be made based on rates determined by the Actuary. Based on those assumptions, the Pension Plan fiduciary net position was projected

to be available to make all projected future benefit payments of current active and non-active Pension Plan members.

Therefore, the long-term expected rate of return on Pension Plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**13. PENSION PLANS (CONTINUED)****Sensitivity of the Authority's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate—**

The following table presents the Authority's proportionate share of the net pension liability using the discount rate of 7.0%, as well as what Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.0%) or one percentage point higher (8.0%) than the current rate (in thousands):

**Sensitivity Analysis – Net Pension Liability as of June 30, 2015**

	<b>1% DECREASE (6.0)%</b>	<b>CURRENT DISCOUNT RATE (7.0%)</b>	<b>1% INCREASE (8.0)%</b>
Net Pension Liability	\$1,400	\$1,012	\$652

**PENSION LIABILITIES, PENSION EXPENSE, AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS**

**Pension Liability**—At June 30, 2015 and 2014, the Authority reported a liability of \$1.0 million and \$901 thousand, respectively, for its proportionate share of the net pension liability. The Authority's proportion of the net pension liability was based on projection of the Authority's long-term share of contributions to the pension plan relative to the projected contributions of all participating City governments and their component units, actuarially determined. At June 30, 2015 and 2014, the Authority's proportion was 0.005% for both years.

**Pension Expense**—For the years ended June 30, 2015 and 2014, the Authority recognized pension expense of \$78.5 thousand and \$105.2 thousand, respectively.

**Deferred Outflows and Inflows of Resources**—At June 30, 2015, the Authority reported total deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (in thousands):

	<b>DEFERRED OUTFLOWS OF RESOURCES</b>	<b>DEFERRED INFLOWS OF RESOURCES</b>
Difference between expected and actual experience	\$-	\$10,148
Changes of assumptions	-	-
Net Difference between projected and actual earnings on pension plan investments	104,989	189,046
Changes in proportion and difference between authority contributions and proportionate share of contributions	-	-
Authority contributions subsequent to the measurement date	-	-
<b>Total</b>	<b>\$104,989</b>	<b>\$199,194</b>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at June 30, 2015 will be recognized in pension expense as follows (in thousands):

**YEAR ENDED JUNE 30:**

2015	\$(47,693)
2016	(47,693)
2017	(47,693)
2018	(25,066)
2019	26,247

**14. OTHER POST-EMPLOYMENT BENEFITS**

**Plan Description**—The Authority’s policy is to provide certain health and related benefits to eligible retirees of the Authority, which constitutes an OPEB plan (the “Plan”) in accordance with GASB Statement No. 45, (“GASB 45”) *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. OPEB is provided under the New York City Health Benefit Program (“NYCHBP”), which is a single-

employer defined benefit healthcare plan to eligible retirees and beneficiaries. The Authority’s policy is to follow the eligibility criteria applicable to retirees of The City and to provide benefits substantially the same as those provided to City retirees and eligible beneficiaries/dependents. OPEB benefits include health insurance, Medicare Part B premium reimbursements, and employee welfare fund contributions.

There are three classes of employees: active, inactive, and retirees. The following presents a summary of the Authority census data used in the June 30, 2014 and June 30, 2013 OPEB actuarial valuations:

GROUP	JUNE 30, 2014	JUNE 30, 2013
Active	14	13
Inactive	1	1
Deferred vested	-	-
Retired	3	3
<b>Total</b>	<b>18</b>	<b>17</b>

**Funding Policy**—The Authority is not required to provide funding for OPEB, other than the pay-as-you-go amount necessary to provide current benefits to retirees and eligible beneficiaries/dependents. For the years ended June 30, 2015 and 2014, the Authority had three retirees and made contributions of \$13.8 thousand and \$11.3 thousand, respectively. Members are not required to contribute; although, retirees may elect basic health insurance programs and/or optional coverage that requires contributions. Plan retiree participants who opt for other basic or enhanced coverage must contribute 100% of the incremental costs above the premiums for benchmark plan. The Plan also reimburses covered employees for 100% of the Medicare Part B premium rate applicable to a given year, and there is no retiree contribution to the welfare fund (the “Welfare Fund”) that covers retirees for various health care benefits not provided through the basic coverage.

the fiscal year 2015 ARC calculation. Under this method, as used in this OPEB actuarial valuation, the actuarial present value (“APV”) of benefits (“APVB”) of each individual included in actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit age(s). The employer portion of this APVB allocated to the valuation year is the employer normal cost. The portion of this APVB that is not provided for a valuation date by the APV of future employer normal cost or future member contributions is the actuarial accrued liability (“AAL”). The excess of the AAL over the actuarial asset value (“AAV”), if any, is the unfunded actuarial accrued liability (“UAAL”).

**Annual OPEB Cost and Net OPEB Obligation**—The Authority’s annual OPEB cost is calculated based on the actuarial annual required contribution of the employer (“ARC”), an amount that was actuarially determined in accordance with the parameters of GASB 45. Actuarial valuations involve estimates and assumptions about the probability of events far into the future. The entry age actuarial cost method was used in the actuarial valuation prepared as of June 30, 2014, which was the basis for

All changes in the UAAL as of June 30, 2014 are being amortized over a one-year period for purposes of calculating the ARC except for the amount of change in UAAL attributable to the change in the actuarial cost method, which is being amortized over a closed 10-year period using level-dollar amortization. This is the minimum period permitted in cases where there is a significant reduction in the UAAL in accordance with GASB 45.

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

The following table shows the elements of the Authority’s annual OPEB cost, the amounts actually contributed, and changes in the Authority’s net OPEB obligation for the fiscal years ended June 30, 2015 and 2014 (in thousands):

	<b>2015</b>	<b>2014</b>
Annual required contribution	\$1,002	\$962
Interest on net OPEB obligations	39	37
Adjustment to annual required contribution	<u>(989)</u>	<u>(958)</u>
<b>Annual OPEB cost</b>	<b>52</b>	<b>41</b>
Payments	(14)	(11)
Net OPEB obligation—beginning of year	<u>951</u>	<u>921</u>
<b>Net OPEB obligation—end of year</b>	<b>\$989</b>	<b>\$951</b>

The Authority’s annual OPEB cost, the percentage of annual OPEB cost contributed, and the net OPEB obligation for the fiscal years ended June 30, 2013 through 2015 were as follows (in thousands):

	<b>ANNUAL OPEB COST</b>	<b>PERCENTAGE OF ANNUAL OPEB COST CONTRIBUTED</b>	<b>NET OPEB OBLIGATION</b>
June 30, 2015	\$52	26.8%	\$989
June 30, 2014	41	27.3	951
June 30, 2013	145	9.5	921

**Funded Status and Funding Progress**—As of June 30, 2014, the most recent actuarial valuation date, the cost was 0% funded. The actuarial accrued liability for benefits was \$855.6 thousand, and the actuarial value of assets was \$0, resulting in a UAAL of \$855.6 thousand. The covered payroll (annual payroll of active employees covered by the OPEB Plan) was \$1.2 million, and the ratio of the UAAL to the covered payroll was 70.5%. The schedule of funding progress, which is presented in the Required Supplementary Information tables following this Notes to Financial Statements section, presents the results of OPEB valuation as of June 30, 2015, 2014, and 2013. This schedule provides a three-year information trend about increases or decreases of the actuarial value of assets over time relative to the actuarial accrued liabilities for benefits.

**Actuarial Methods and Assumptions**—Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future, such as assumptions about future employment, demographic, salary increase, mortality, and the healthcare cost trend. Amounts determined regarding

the funded status of the OPEB Plan and the annual required contributions of the Authority are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. Projections of benefits for financial reporting purposes are based on the types of benefits provided at the time of each valuation and the historical pattern of the sharing of benefit costs between the employer and employees to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities, consistent with the long-term perspective of the calculations.

The actuarial assumptions used in the June 30, 2014 and 2013 OPEB actuarial valuations are classified as those used in the New York City Retirement Systems (“NYCRS”) valuations and those specific to the OPEB valuations.

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

The OPEB actuarial valuations incorporate only the use of certain NYCERS demographic and salary increase assumptions. The NYCERS demographic and salary scale assumptions are unchanged from the prior OPEB actuarial valuation. For purposes of determining pension obligations, the demographic and salary scale assumptions requiring NYCERS Board approval (available on the website of the Office of the Actuary at [www.nyc.gov/actuary](http://www.nyc.gov/actuary)) were adopted by each respective Board of Trustees during fiscal year 2012 (the Silver Books). Chapter 3 of the Laws of 2013 enacted those actuarial assumptions and methods that require New York State Legislation.

The OPEB-specific actuarial assumptions used in the June 30, 2014 OPEB actuarial valuation of the OPEB Plan are as follows:

- Valuation Date—June 30, 2014.
- Discount Rate—4.0% per annum<sup>1</sup>
- Actuarial Cost Method—Entry age calculated on an individual basis with the actuarial value of projected benefits allocated on a level basis over earnings from hire through age of exit.
- Per-Capita Claims Costs—HIP HMO and GHI/EBCBS benefit costs reflect age adjusted premiums. GHI/EBCBS non-Medicare premiums adjusted for Health Savings Agreement changes. Age adjustments based on assumed age distribution of covered population used for non-Medicare retirees and HIP HMO Medicare retirees.
- Age adjustment based on actual age distribution of the GHI/EBCBS Medicare covered population.
- Insured premiums are without age adjustment for other coverage. Premiums assumed to include administrative costs.

Employer premium contribution schedules for the months of July 2014 and January 2015 were reported by the New York City Office of Labor Relations (“OLR”). In most cases, the premium contributions remained the same throughout the year. HIP HMO Medicare rates varied by date and by specific Plan option. These variations are the result of differing Medicare Advantage reimbursements. The various monthly rates were blended by proportion of enrollment. For other rates, where the January 2015 premium rate was different than the July 2014 premium rate, the valuation assumed that the January 2015 premium rate was more representative of the long-range cost of the arrangement.

<sup>1</sup>2.5% CPI, 1.5% real rate of return on short-term investments.

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

The initial monthly premium rates used in the valuations are shown in the following table:

PLAN	Monthly Rates	
	FY 2015 <sup>1</sup>	FY 2014 <sup>2</sup>
<b>HIP HMO</b>		
Non-Medicare Single	\$586.10	\$579.04
Non-Medicare Family	1,435.95	1,418.66
Medicare	157.55	149.42
<b>GHI/EBCBS</b>		
Non-Medicare Single	507.79 <sup>3</sup>	459.63
Non-Medicare Family	1,319.83 <sup>3</sup>	1,194.24
Medicare	160.86	159.69
<b>OTHERS</b>		
Non-Medicare Single	586.10	579.04
Non-Medicare Family	1,435.95	1,418.66
Medicare	160.86	159.69

<sup>1</sup> Used in June 30, 2014 OPEB actuarial valuation.

<sup>2</sup> Used in June 30, 2013 OPEB actuarial valuation.

<sup>3</sup> For June 30, 2014 valuation, GHI/EBCBS Pre-Medicare premiums decreased 2.05% to reflect 2014 Health Savings Agreement change to Care Management program and specialty drug (PICA) changes.

**Welfare Funds**—For the June 30, 2014 valuation, the Welfare Fund contribution reported for fiscal year 2015, including any reported retroactive amounts, was used as the per capita cost for valuation purposes. The amount used included the \$25 increase effective July 1, 2014 under the 2014 MLC-NYC Health Savings Agreement, as well as further \$25 annual increases effective July 1, 2015, July 1, 2016 and July 1, 2017. It is assumed that all Welfare Funds will ultimately be subject to that agreement, whether or not the union running the particular Welfare Fund has currently signed.

For the June 30, 2013 valuation, the Welfare Fund contributions reflected a three-year trended average of reported annual contribution amounts for current retirees. A trended average was used instead of a single reported Welfare Fund amount to smooth out negotiated variations. The Welfare Fund rates reported for the previous two valuations were trended to current levels based on a historic increase rate of 1.57% for fiscal year 2014 (used in calculating the impact of the negotiated Welfare Fund change), 1.64% for fiscal year 2013, and 2.33% for fiscal year 2012, approximating overall recent growth of Welfare Fund contributions.

For the June 30, 2013 OPEB actuarial valuation, certain lump-sum amounts had been included in calculating the three-year trended average. Furthermore, retroactive adjustments to Welfare Fund contribution rates were used in the trended average as of the dates they were effective (i.e., using the retroactive date).

Reported annual contribution amounts for the last three years are shown in Appendix B, Tables 2a to 2e of the tenth annual actuarial valuation of OPEB provided under the NYCHBP (the “Tenth Annual OPEB Report”) dated September 17, 2015. The amounts shown for fiscal year 2015 as of June 30, 2014, which increased by \$25 as of July 1, 2014, are used for current retirees.

Welfare Fund rates are based on actual reported union Welfare Fund code for current retirees. Where a union Welfare Fund code was missing, the most recently reported union code was reflected.

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

The weighted average annual contribution rates used for future retirees are shown in the following table. These averages were developed based on the Welfare Fund enrollment of recent retirees (during the five years prior to the valuation).

	<b>Annual Rate</b>	
	<b>FY 2015</b>	<b>FY 2014</b>
NYCERS	\$1,693	\$1,700

Contributions were assumed to increase by Medicare Plan trend rates. For the June 30, 2014 OPEB actuarial valuation, the assumed increases were replaced by the negotiated \$25 increase for the next three fiscal years.

For Welfare Fund contribution amounts reflected in the June 30, 2013 OPEB actuarial valuation for current retirees, see the ninth annual OPEB report.

**Medicare Part B Premiums**

<b>CALENDAR YEAR</b>	<b>MONTHLY PREMIUM</b>
2012	\$99.90
2013	104.90
2014	104.90
2015	104.90*

\* Reflected only in June 30, 2014 OPEB actuarial valuation.

2015 Medicare Part B premiums are assumed to increase by Medicare Part B trend rates.

Medicare Part B premium reimbursement amounts have been updated to reflect the actual premium rates announced for calendar years through 2015. The actual 2016 Medicare Part B premium was not announced at the time these calculations were prepared and, thus, was not reflected in the valuation. The Social Security Administration (“Social Security”) COLA adjustment for calendar year 2016 benefits was not announced as of the time these calculations were prepared. Thus, Social Security benefits were assumed to increase such that Medicare Part B premiums were not frozen at 2015 levels based on Social Security benefit amounts.

For the June 30, 2013 OPEB actuarial valuation (i.e., fiscal year 2014), the annual premium used (i.e., \$1,258.80) equaled six months of the calendar year 2013 premium plus six months of the calendar year 2014 premium.

For the June 30, 2014 OPEB actuarial valuation (i.e., fiscal year 2015), the annual premium used (i.e., \$1,258.80) equals six months of the calendar year 2014 premium (i.e., \$104.90) plus six months of the calendar year 2015 premium (i.e., \$104.90).

Future calendar year Medicare Part B premium rates are projected from the calendar year 2015 rate of \$104.90 using the assumed Medicare Part B premium trend.

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

Overall Medicare Part B premium amounts are assumed to increase by the following percentages to reflect the income-related increases in Medicare Part B premiums for high-income individuals. The percentages assumed for the June 30, 2014 OPEB actuarial valuation have been increased to reflect revisions to the income-related Part B premium provisions as adopted in the Medicare Access and CHIP Reauthorization Act of 2015 (“MACRA”). Percentages are assumed based on Centers for Medicare

and Medicaid Management Services (“CMS”) income distribution published statistics and provisions of the Social Security Act related to Medicare Part B premium amounts, both before and after MACRA changes. Assumed percentage amounts are compared to actual Income Related Monthly Adjustment Amount (“IRMAA”) payments as reported by OLR through calendar year 2012.

FISCAL YEAR	Income-Related Medicare Part B Increase	
	JUNE 30, 2014 VALUATION	JUNE 30, 2013 VALUATION
2014	NA	3.70%
2015	3.80%	3.80
2016	3.90	3.90
2017	4.00	4.00
2018	4.50	4.10
2019	5.00	4.20
2020	5.20	4.30
2021	5.30	4.40
2022	5.40	4.50
2023	5.50	4.60
2024	5.60	4.70
2025	5.80	4.80
2026	5.90	4.90
2027 and later	6.00	5.00

**Medicare Part B Premium Reimbursement Assumption**—For the June 30, 2014 OPEB actuarial valuation, 90% of Medicare participants are assumed to claim reimbursement (unchanged from last year). This percentage is based on claim counts reported by OLR for calendar years 2007 through 2013.

**Health Care Cost Trend Rate (“HCCTR”)**—Covered medical expenses are assumed to increase by the following percentages (unchanged from the last valuation). For purposes of measuring entry age calculations, actual historic plan increases are reflected to the extent known, with further historic trend rates based on the trend assumed for fiscal year 2015 (initial trend).

YEAR ENDING <sup>1</sup>	HCCTR Assumptions		
	PRE-MEDICARE PLANS	MEDICARE PLANS	MEDICARE PART B PREMIUMS
2015 <sup>2</sup>	9.0%	5.0%	6.0%
2016 <sup>3</sup>	8.5	5.0	5.5
2017	8.0	5.0	5.0
2018	7.5	5.0	5.0
2019	7.0	5.0	5.0
2020	6.5	5.0	5.0
2021	6.0	5.0	5.0
2022	5.5	5.0	5.0
2023 and later	5.0	5.0	5.0

<sup>1</sup> Fiscal year for Pre-Medicare Plans and Medicare Plans and calendar year for Medicare Part B Premiums.

<sup>2</sup> For the June 30, 2014 OPEB actuarial valuation, rates shown for 2015 were not reflected since actual values for the fiscal year 2015 per capita costs, fiscal year 2015 Welfare Fund contributions, and calendar year 2015 Medicare Part B premium amounts were used.

<sup>3</sup> For the June 30, 2014 OPEB actuarial valuation, HIP and HMO Pre-Medicare trend is assumed to be 2.89% based on 2014 Health Care Savings Agreement initiatives.

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

**Age- and Gender-Related Morbidity**—The premiums are age adjusted for HIP HMO and GHI/EBCBS participants. Beginning with the June 30, 2012 OPEB actuarial valuation, the premiums are also adjusted for gender.

Beginning with the June 30, 2012 OPEB actuarial valuation, the assumed relative costs of coverage are consistent with information presented in Health Care Costs—From Birth to Death, prepared by Dale H. Yamamoto<sup>1</sup> (“Yamamoto Study”).

For non-Medicare costs, relative factors were based on graduated 2010 PPO/POS data as presented in Chart 28 of the Yamamoto Study. The resulting relative factors, normalized to the male age 65 rate, that were used for non-Medicare costs (unchanged from the previous OPEB actuarial valuation) are as follows:

AGE	MALE	FEMALE	AGE	MALE	FEMALE
20	0.170	0.225	43	0.325	0.480
21	0.157	0.227	44	0.340	0.487
22	0.147	0.236	45	0.355	0.495
23	0.143	0.252	46	0.372	0.505
24	0.143	0.274	47	0.391	0.519
25	0.146	0.301	48	0.412	0.536
26	0.151	0.329	49	0.437	0.556
27	0.157	0.357	50	0.463	0.576
28	0.165	0.384	51	0.491	0.597
29	0.173	0.408	52	0.519	0.616
30	0.181	0.428	53	0.547	0.635
31	0.190	0.444	54	0.577	0.653
32	0.199	0.456	55	0.608	0.671
33	0.208	0.463	56	0.641	0.690
34	0.217	0.466	57	0.676	0.710
35	0.227	0.466	58	0.711	0.732
36	0.237	0.465	59	0.747	0.756
37	0.249	0.464	60	0.783	0.783
38	0.261	0.464	61	0.822	0.813
39	0.274	0.465	62	0.864	0.846
40	0.286	0.467	63	0.909	0.881
41	0.299	0.471	64	0.957	0.917
42	0.312	0.475			

Children costs were assumed to represent a relative factor of 0.229.

<sup>1</sup> [http://www.healthcostinstitute.org/files/Age-Curve-Study\\_0.pdf](http://www.healthcostinstitute.org/files/Age-Curve-Study_0.pdf). Retrieved July 15, 2013. The Study was sponsored by the Society of Actuaries and is part of the Health Care Cost Institute’s Independent Report Series.

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

For Medicare costs, relative factors based on the Yamamoto Study for net Medicare costs for 2010 for inpatient, outpatient, and professional costs were blended. Prescription drug costs were not reflected as NYCHBP excludes most drugs from coverage. Professional costs were weighted at 64%, based on the GHI portion of the combined GHI/EBCBS premiums reported historically. Inpatient costs were weighted as twice as prevalent as outpatient costs based on the relative allocation suggested in the Yamamoto Study. Costs prior to age 65 were approximated using the non-Medicare data, but they assume that individuals under age 65 on Medicare had an additional disability-related morbidity factor. The resulting Medicare relative factors are as follows:

AGE	MALE	FEMALE	AGE	MALE	FEMALE
20	0.323	0.422	60	1.493	1.470
21	0.297	0.426	61	1.567	1.526
22	0.280	0.443	62	1.646	1.588
23	0.272	0.474	63	1.731	1.653
24	0.272	0.516	64	1.822	1.721
25	0.278	0.565	65	0.919	0.867
26	0.288	0.618	66	0.917	0.864
27	0.300	0.671	67	0.918	0.864
28	0.314	0.721	68	0.924	0.867
29	0.329	0.766	69	0.933	0.875
30	0.346	0.804	70	0.946	0.885
31	0.363	0.834	71	0.961	0.898
32	0.380	0.856	72	0.978	0.911
33	0.397	0.869	73	0.996	0.925
34	0.414	0.875	74	1.013	0.939
35	0.432	0.876	75	1.032	0.953
36	0.452	0.874	76	1.049	0.967
37	0.474	0.872	77	1.067	0.982
38	0.497	0.871	78	1.085	0.996
39	0.521	0.873	79	1.103	1.012
40	0.545	0.878	80	1.122	1.029
41	0.569	0.885	81	1.141	1.047
42	0.594	0.893	82	1.161	1.065
43	0.620	0.902	83	1.180	1.083
44	0.647	0.914	84	1.199	1.100
45	0.676	0.929	85	1.217	1.116
46	0.708	0.949	86	1.234	1.130
47	0.744	0.975	87	1.250	1.143
48	0.785	1.007	88	1.264	1.155
49	0.832	1.043	89	1.277	1.164
50	0.883	1.082	90	1.287	1.169
51	0.935	1.120	91	1.295	1.171
52	0.988	1.156	92	1.301	1.167
53	1.042	1.191	93	1.305	1.156
54	1.099	1.225	94	1.306	1.139
55	1.159	1.260	95	1.304	1.113
56	1.222	1.295	96	1.299	1.077
57	1.288	1.333	97	1.292	1.033
58	1.355	1.374	98	1.281	0.978
59	1.423	1.419	99+	1.281	0.978

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

For the June 30, 2013 and June 30, 2014 OPEB actuarial valuations, an actual age and gender distribution based on reported census information was used for Medicare-eligible participants. For the June 30, 2013 and June 30, 2014 OPEB actuarial valuations, the Medicare participants in the HIP Medicare Advantage arrangement were assumed to have the same age and gender distribution as the data underlying the Yamamoto Study.

For the June 30, 2013 and June 30, 2014 OPEB actuarial valuations, the age and gender of non-Medicare eligible participants were based on the following assumed distribution table, assuming a total of 2,354 single contracts and 2,492 family contracts.

AGE RANGE	Members Used	
	MALE	FEMALE
00-00	64	64
01-01	67	67
02-04	210	210
05-09	373	373
10-14	403	403
15-19	388	371
20-24	310	323
25-29	338	357
30-34	431	447
35-39	481	499
40-44	495	530
45-49	446	486
50-54	392	422
55-59	271	272
60-64	173	166
65+	89	76

For the June 30, 2014 OPEB actuarial valuation, the age adjustment for the non-Medicare GHI/EBCBS premium reflects a 5% reduction in the GHI portion of the monthly premium (with the GHI portion representing \$247.74 out of the \$507.79 single premium and \$657.40 out of the \$1,319.83 family premium) and a 3% reduction in the EBCBS portion of the premium (with the EBCBS portion representing the remainder of the \$507.79 and \$1,319.83 premiums) for the estimated margin anticipated to be returned.

No adjustment was assumed for margin for the June 30, 2013 valuation.

The morbidity factors are used to age-adjust the reported premiums for the HIP and GHI/EBCBS arrangements. The stated premiums provided to the Office of Actuary (“OA”) by OLR reflect the average

cost of retirees and actives of the NYCHBP, not all of whom are included in this valuation report. The assumed underlying cost of the benefit provided to retirees is developed by taking the stated premiums, removing any known margin to get to underlying expected cost of benefits provided (including administrative costs), adjusting for any plan changes, and then finally adjusting for the age and gender of the particular retiree. The age and gender is compared to a distribution for the age and gender of the overall population reflected in developing the stated premium.

The distribution can reflect the actual age and gender of the covered population, or can be an estimate if the actual data is not available.

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

**Medicare Advantage Adjustment Factors**—The age-adjusted premiums for HIP HMO Medicare-eligible retirees were multiplied by the following factors to reflect actual Calendar Year 2015 premiums and future anticipated changes in Medicare Advantage reimbursement rates. As of June 30, 2009, the factors had been updated to reflect that Medicare Advantage reimbursement rates are expected to be significantly reduced over the next several years. The reductions in the reimbursement rates were part of the National Health Care Reform (“NHCR”) legislation and are likely to be most significant in areas where medical costs are greater, such as New York City. In developing the adjustment factors for the June 30, 2014 and the June 30, 2013 OPEB actuarial valuations, it was assumed that the cost of HIP coverage would not be allowed to exceed the cost of GHI/EBCBS coverage for Medicare retirees. Since for the June 30, 2014 valuation, the reported calendar year 2015 HIP Medicare Advantage premium is within 1/2% of the fiscal year 2015 GHI/EBCBS Medicare rate, the assumption that HIP would not be allowed to exceed the GHI/EBCBS rate has resulted in a factor of 1.0 for all future years. The adjustment factors used as of June 30, 2013 are shown for comparative purposes.

FISCAL YEAR	Factor	
	JUNE 30, 2014 VALUATION	JUNE 30, 2013 VALUATION
2014	1.00	1.00
2015	1.00	1.03
2016	1.00	1.04
Thereafter	1.00	1.04

**Medicare**—Medicare is assumed to be the primary payer over age 65 and for retirees currently on Medicare. For future disability retirements, Medicare is assumed to start 2.5 years after retirement for the following portion of retirees:

	Valuation as of June 30	
	2014	2013
NYCERS	35%	35%

**Participation**—Active participation assumptions are based on actual elections for current retirees. Portions of current retirees not eligible for Medicare are assumed to change elections upon attaining age 65 based on patterns of elections of Medicare-eligible retirees.

Detailed assumptions appear in the following table:

**Plan Participation Assumptions — June 30, 2014 and June 30, 2013 Valuations**

BENEFITS	NYCERS
<b>PRE-MEDICARE</b>	
GHI/EBCBS	65%
HIP HMO	22
Other HMO	8
Waiver	5
<b>MEDICARE</b>	
GHI	72
HIP HMO	21
Other HMO	4
Waiver	3
<b>POST-MEDICARE MIGRATION</b>	
Other HMO to GHI	50
HIP HMO to GHI	-
Pre-Med. Waiver	
To GHI @ 65	13
To HIP @ 65	13

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

Waivers are assumed to include participants who do not qualify for coverage because they were working less than 20 hours a week at termination.

**Dependent Coverage**—Dependent coverage is assumed to terminate when a retiree dies.

**Dependents**—Dependent assumptions based on distribution of coverage of recent retirees are shown in the following table. Actual spouse data is shown for current retirees. Child dependents of current retirees are assumed to receive coverage until age 26.

Beginning with the June 30, 2012 valuation, based on experience under the OPEB Plan for NYCERS, male retirees were assumed to be four (4) years older than their wives, and female retirees were assumed to be two (2) years younger than their husbands.

Children are assumed to be covered for eight (8) years after retirement. For employees eligible to retire based only on service, children are assumed to be covered for an additional five (5) years.

**Dependent Coverage Assumptions — June 30, 2014 and June 30, 2013 Valuations**

GROUP	NYCERS
<b>MALE</b>	
Single Coverage	30%
Spouse	40
Child/No Spouse	5
Spouse and Child	25
<b>Total</b>	<b>100%</b>
<b>FEMALE</b>	
Single Coverage	70%
Spouse	20
Child/No Spouse	5
Spouse and Child	5
<b>Total</b>	<b>100%</b>

**Demographic Assumptions**—The same assumptions that were used to value the pension benefits of the NYCERS for determining employer contributions for fiscal years beginning 2012 adopted by the Board of Trustees. (See the Silver Books.)

For assumptions used in the June 30, 2013 OPEB actuarial valuation, see the ninth annual OPEB report.

**COBRA Benefits**—Although COBRA beneficiaries pay 102% of “premiums,” typical claim costs for COBRA participants run about 50% greater than other participants.

There is no cost to The City for COBRA beneficiaries who enroll in community-rated HMOs, including HIP, since these individuals pay their full community rate.

However, The City’s costs under the experience-rated GHI/EBCBS coverage are affected by the claims for COBRA-covered individuals.

In order to reflect the cost of COBRA coverage, the cost of excess claims for GHI-covered individuals and families is estimated assuming 15% of employees not eligible for other benefits included in the valuation elect COBRA coverage for 15 months. These assumptions are based on the experience of other large employers. This percentage is applied to the overall enrollment in the active plan and reflects a load for individuals not yet members of the retirement systems who are still eligible for COBRA benefits.

**14. OTHER POST-EMPLOYMENT BENEFITS (CONTINUED)**

This results in an assumption in the June 30, 2014 OPEB actuarial valuation of a lump-sum COBRA cost of \$875 for terminations during fiscal year 2015 (\$800 lump-sum cost during fiscal year 2014 was assumed in the June 30, 2013 OPEB actuarial valuation). The \$875 (\$800) lump-sum amount is increased by the Pre-Medicare HCCTR for future years but is not adjusted for age-related morbidity.

**Cadillac Tax**—Effective June 30, 2012, the OPEB actuarial valuation includes an explicit calculation of the high-cost plan excise tax (“Cadillac Tax”) that will be imposed beginning in 2018 under NHCR.

The tax is 40% of the excess of (a) over (b), where (a) is the cost of medical coverage and (b) is the statutory limits (\$10,200 for single coverage and \$27,500 for family coverage), adjusted for the following:

- The limit will first be increased by the excess of accumulated trend for the period from 2010 through 2018 over 55% (reflecting the adjustment for excess trend on the standard Federal Blue Cross/Blue Shield option). The calculation reflects the actual trend on the standard Federal Blue Cross/Blue Shield option for 2010 through 2015. The trend was estimated using the Pre-Medicare trend for the period from 2015 through 2018 and the actual Federal Blue Cross/Blue Shield trend for the period 2010–2015.
- For Pre-Medicare retirees above the age of 55, the limit will be further increased by \$1,650 for single coverage and \$3,450 for family coverage.
- For 2019, the 2018 limit was increased by the CPI + 1% (e.g. 3.5%). For each year after 2019, the limit is further increased by the CPI (2.5%).

The impact of the Cadillac Tax for the NYCHBP benefits is calculated based on the following assumptions about the cost of medical coverage:

- Benefit costs were based on Pre-Medicare and Medicare plan premiums as stated, without adjustment for age.
- For Medicare participants, the cost of reimbursing the Medicare Part B premium was reflected based on average cost assumed in the valuation, including IRMAA.
- The cost for each benefit option (GHI, HIP, or other

HMO, combined with Medicare Part B premium reimbursement, if applicable) was separately compared to the applicable limit.

- The additional Cadillac Tax due to the riders or optional benefit arrangements is assumed to be reflected in the contribution required for the rider or optional benefit.
- The additional Cadillac Tax due to amounts provided by Welfare Fund benefits is assumed to be absorbed by the Welfare Fund or by lower net Welfare Fund contribution amounts.
- There is no assumption of additional amounts required from the various benefit administrators due to the fact that the Cadillac Tax is not deductible to tax-paying entities. Instead, it is assumed that by 2018, financial arrangements are structured such that the tax-exempt status of The City results in no need to gross up the cost of the Cadillac Tax for additional taxes.
- The additional amount for Pre-Medicare retirees above age 55 is available to Medicare retirees or retirees who are younger than age 55 for plans sponsored by an employer where the majority of employees are engaged in high-risk professions including law enforcement officers and fire fighters. It has been assumed that the majority of the employees of The City are not engaged in such professions and have not extended the adjustment to these additional ages.

In cases where The City provides only a portion of the OPEB benefits, which give rise to the Cadillac Tax, the calculated Cadillac Tax is allocated to the appropriate paying entity in proportion to the OPEB liabilities for relevant OPEB benefits.

**Active/Inactives Liabilities**—Beginning with the June 30, 2010 OPEB actuarial valuation, it was assumed that the liability for the Active/Inactive members should be 40% of the measured liability of the Active/Inactive population. This is roughly equivalent to assuming that 60% of the Active/Inactive members will terminate membership prior to vesting and not receive OPEB. Beginning with the June 30, 2012 OPEB actuarial valuation, the entry age actuarial accrued liability is assumed to include 40% of the measured present value of projected benefits.

**15. POLLUTION REMEDIATION OBLIGATIONS**

The System reports pollution remediation obligations (“PROs”) as required by GASB. The System’s PROs may arise as a result of: 1) federal, state, and local laws and regulations, 2) violations of pollution-related permits or licenses, 3) a determination by the System that there is an imminent endangerment to public health and safety as a result of an existing pollution condition, 4) the System’s being named in a lawsuit to compel remediation or being identified by a regulator as a party responsible or potentially responsible for remediation, and/or 5) the System’s voluntarily commencement of remediation. As of June 30, 2015 and 2014, the System reported \$79.0 million and \$98.9 million of liabilities for known PROs, respectively.

The System has estimated these amounts based on the current value of outlays expected to be incurred for pollution remediation, which it is currently obligated to perform. Actual future outlays will differ from the estimated amounts if the prices or techniques for remediation measures change or differ from estimates, if and when additional information about existing pollution conditions becomes known to the System in the future, and/or if applicable laws or regulations change.

Remediation outlays for certain pollution conditions currently known to the System are not included in the reported liabilities because they are not yet reasonably estimable. These include certain locations that the System

has been informed may be designated under federal law as Superfund sites to address hazardous substances, pollutants, or contaminants at these sites and for which the System may be named as a potentially responsible party for the remediation because there are System facilities operated at these locations.

**16. SUBSEQUENT EVENTS**

- On July 2, 2015, the Authority, through EFC, issued \$380.8 million of fixed-rate refunding and new money Second Resolution Bonds, Fiscal 2016 Series 1 and 2. Proceeds from bonds were used to refund a portion of Fiscal 2006 Series 1 bonds, to retire the Fiscal 2014 Series 3 BANs, and to pay bond issuance costs.
- On July 9, 2015, the Authority issued Fiscal 2016 Series 3 BANs to EFC in the amount of \$625.4 million to pay for the costs of the improvements to the System.
- On July 23, 2015, the Authority drew down \$3.7 million of Fiscal 2015 Series 1 BANs.
- On September 24, 2015, the Authority drew down \$616.4 million of Fiscal 2016 Series 3 BANs.



# REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

## SCHEDULE OF FUNDING PROGRESS FOR THE OTHER POSTEMPLOYMENT BENEFIT PLAN

June 30, 2015, 2014, and 2013 (in thousands):

YEAR ENDED	ACTUARIAL VALUATION DATE	ACTUARIAL VALUE OF ASSETS	ACTUARIAL ACCRUED LIABILITY (AAL) ENTRY AGE	UNFUNDED ALL (UAAL)	FUNDED RATIO	COVERED PAYROLL	UAAL AS A PERCENTAGE OF COVERED PAYROLL
June 30, 2015	June 30, 2014	\$-	\$856	\$856	-	\$1,213	70.5%
June 30, 2014	June 30, 2013	-	819	819	-	1,107	74.0
June 30, 2013	June 30, 2012	-	793	793	-	1,064	74.6

## SCHEDULE OF THE AUTHORITY'S PROPORTION SHARE OF THE NET PENSION LIABILITY

Last Ten Fiscal Years\* (in thousands):

	2015	2014	2013
Authority's proportion of the net pension liability	0.005%	0.005%	0.005%
Authority's proportionate share of the net pension liability	\$1,012	\$901	\$1,154
Authority's covered-employee payroll	\$1,213	\$1,107	\$1,064
Authority's proportionate share of the net pension liability as percentage of its covered employee payroll	83.4%	81.4%	108.5%
Plan fiduciary net position as a percentage of the total pension liability	73.1%	75.3%	67.2%

\* This data is presented for those years for which information is available.

## SCHEDULE OF THE AUTHORITY'S PENSION CONTRIBUTION

Last Ten Fiscal Years\* (in thousands):

	2015	2014	2013	2012	2011	2010	2009
Actuarially determined contribution	\$161	\$141	\$136	\$157	\$113	\$121	\$55
Contribution in relation to the actuarially determined contribution	(161)	(141)	(136)	(157)	(113)	(121)	(55)
Contribution deficiency (excess)	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Authority's covered - employee payroll <sup>1</sup>	\$1,213	\$1,107	\$1,064	\$919	\$1,026	\$676	\$729
Contribution as a percentage of covered-employee payroll	13.27%	13.27%	12.78%	17.08%	11.01%	17.90%	7.55%

\* This data is presented for those years for which information is available.

<sup>1</sup> Covered-employee payroll data from the actuarial valuation date with one-year lag.

# STATISTICAL SECTION

This part of the New York City Water and Sewer System's Comprehensive Annual Financial Report presents detailed information to provide context to the information in the financial statements, note disclosures and required supplementary information.

## CONTENTS

### FINANCIAL TRENDS

These schedules contain trend information to help the reader understand how the System's financial performance and well-being have changed over time.

### REVENUE CAPACITY

These schedules contain information to help the reader assess the System's primary revenue source and customer's utility payments.

### DEBT CAPACITY

These schedules present information to help the reader assess the affordability of the System's current level of outstanding debt and the System's ability to issue additional debt in the future.

### DEMOGRAPHIC AND ECONOMIC INFORMATION

These schedules offer demographic and economic indicators to help the reader understand the environment within which the System's financial activities take place.

### OPERATING INFORMATION

These schedules contain service and infrastructure data to help the reader understand how the information in the System's financial report relates to the services the System provides.

## SCHEDULES OF FINANCIAL TRENDS INFORMATION

### Net Position by Category - Ten Year Trend

	2015	2014	2013 Restated	2012 Restated	2011	2010	2009	2008	2007	2006
Invested in capital assets net of related debt	\$(598,349)	\$(771,165)	\$(945,890)	\$(840,201)	\$(215,322)	\$920,728	\$1,253,882	\$1,737,181	\$2,056,879	\$2,556,766
<b>Restricted for:</b>										
Debt service	1,224,925	1,145,505	918,229	687,656	573,461	239,192	285,348	209,130	161,661	171,859
Operations and maintenance	226,383	221,440	212,233	212,885	199,636	191,772	195,844	200,438	175,161	157,806
Unrestricted (deficit)	(723,166)	(754,581)	(668,471)	(869,372)	(910,633)	(1,632,209)	(1,474,823)	(980,858)	(667,418)	12,950
<b>Total net position</b>	<b>\$129,793</b>	<b>\$(158,801)</b>	<b>\$(483,899)</b>	<b>\$(809,032)</b>	<b>\$(352,858)</b>	<b>\$(280,517)</b>	<b>\$260,251</b>	<b>\$1,165,891</b>	<b>\$1,726,283</b>	<b>\$2,899,381</b>

### Changes in Net Position - Ten Year Trend

	2015	2014	2013 Restated	2012 Restated	2011	2010	2009	2008	2007	2006
<b>Operating Revenues</b>										
Water Supply and distribution	\$1,382,189	\$1,351,550	\$1,278,646	\$1,238,352	\$1,158,977	\$1,005,045	\$920,033	\$784,856	\$796,404	\$735,200
Sewer collection and treatment	2,197,679	2,148,964	2,033,047	1,857,527	1,797,777	1,562,777	1,430,588	1,220,653	1,238,612	1,143,424
Bad debt expense	(23,301)	(26,979)	(16,983)	(28,541)	(76,799)	(14,032)	(36,060)	-	(226,028)	(87,222)
Other operating revenues	211,267	266,996	172,283	140,595	111,552	190,251	97,946	97,778	98,061	100,306
<b>Total operating revenues</b>	<b>3,767,834</b>	<b>3,740,531</b>	<b>3,466,993</b>	<b>3,207,933</b>	<b>2,991,507</b>	<b>2,744,041</b>	<b>2,412,507</b>	<b>2,103,287</b>	<b>1,907,049</b>	<b>1,891,708</b>
<b>Operating Expenses</b>										
Operation and maintenance	1,517,132	1,518,424	1,375,740	1,446,852	1,397,867	1,829,835	1,448,268	1,320,439	1,147,157	1,056,379
Administration and general	55,865	68,936	56,738	47,402	40,424	40,257	50,581	44,027	35,493	26,727
<b>Total operating expenses</b>	<b>1,572,997</b>	<b>1,587,360</b>	<b>1,432,478</b>	<b>1,494,254</b>	<b>1,438,291</b>	<b>1,870,092</b>	<b>1,498,849</b>	<b>1,364,466</b>	<b>1,182,650</b>	<b>1,083,106</b>
<b>Depreciation and amortization</b>	<b>1,023,906</b>	<b>740,879</b>	<b>677,560</b>	<b>692,296</b>	<b>628,339</b>	<b>574,483</b>	<b>696,345</b>	<b>646,377</b>	<b>579,860</b>	<b>500,161</b>
<b>Operating income</b>	<b>1,170,931</b>	<b>1,412,292</b>	<b>1,356,955</b>	<b>1,021,383</b>	<b>924,877</b>	<b>299,466</b>	<b>217,313</b>	<b>92,444</b>	<b>144,539</b>	<b>308,441</b>
<b>Nonoperating revenue (expenses)</b>										
Interest expense	(1,264,538)	(1,263,305)	(1,225,771)	(1,246,863)	(1,178,226)	(1,019,633)	(929,333)	(834,085)	(771,656)	(731,563)
Loss on retirement/impairment of fixed assets	(2,334)	(18,815)	(20,976)	(1,646)	(3,426)	(23,254)	(299,450)	(14,598)	(23,257)	(7,046)
Subsidy income	163,655	174,606	174,862	196,241	180,986	128,110	108,708	104,234	90,601	88,447
Capital distribution	(25,337)	(39,627)	(25,429)	(42,005)	(53,591)	(32,580)	(51,921)	(24,619)	(33,133)	
Investment income	22,426	50,148	58,793	48,936	38,313	65,760	99,122	108,892	98,132	105,239
<b>Net income (loss) before capital contributions</b>	<b>64,803</b>	<b>315,299</b>	<b>318,434</b>	<b>(23,954)</b>	<b>(91,067)</b>	<b>(582,131)</b>	<b>(855,561)</b>	<b>(567,732)</b>	<b>(494,774)</b>	<b>(236,482)</b>
<b>Capital contributions</b>	<b>223,791</b>	<b>9,799</b>	<b>7,699</b>	<b>26,903</b>	<b>18,696</b>	<b>30,424</b>	<b>11,529</b>	<b>7,340</b>	<b>12,357</b>	<b>(19,241)</b>
Change in net position	288,594	325,098	326,133	2,949	(72,371)	(551,707)	(844,032)	(560,392)	(482,417)	(255,723)
Net position - beginning of year	(158,801)	(483,899)	(809,032)	(352,888)	(280,517)	260,251	1,165,891	1,726,283	2,899,381	3,155,104
Restatement of beginning net position	-	-	(1,000)	(459,093)	-	10,939	(61,608)	-	(690,681)	-
<b>Net position - end of year</b>	<b>\$129,793</b>	<b>\$(158,801)</b>	<b>\$(483,899)</b>	<b>\$(809,032)</b>	<b>\$(352,888)</b>	<b>\$(280,517)</b>	<b>\$260,251</b>	<b>\$1,165,891</b>	<b>\$1,726,283</b>	<b>\$2,899,381</b>

## REVENUE CAPACITY INFORMATION

### Water and Sewer Rate Increases - Ten Year Trend

EFFECTIVE DATE	INCREASE IN FLAT-RATE WATER/METERED WATER	METERED WATER RATE (PER CCF) <sup>1</sup>	SEWER RATE
July 1, 2006	Increased 9.4%	1.81	159% of water charge
July 1, 2007	Increased 11.5%	2.02	159% of water charge
July 1, 2008	Increased 14.5%	2.31	159% of water charge
July 1, 2009	Increased 12.9%	2.61	159% of water charge
July 1, 2010	Increased 12.9%	2.95	159% of water charge
July 1, 2011	Increased 7.5%	3.17	159% of water charge
July 1, 2012	Increased 7.0%	3.39	159% of water charge
July 1, 2013	Increased 5.6%	3.58	159% of water charge
July 1, 2014	Increased 3.4%	3.70	159% of water charge
July 1, 2015	Increased 3.0%	3.81	159% of water charge

<sup>1</sup> ccf = 100 cubic feet or approximately 748 gallons.

### Average Daily Water Consumption - Ten Year Trend

FISCAL YEAR	TOTAL (MGD) <sup>1</sup>	UPSTATE COUNTIES (MGD) <sup>1</sup>	CITY (MGD) <sup>1</sup>	PER CAPITA (GALS/DAY) <sup>2</sup>
2006	1,210	122	1,088	136
2007	1,218	120	1,098	137
2008	1,235	119	1,116	139
2009	1,152	114	1,038	129
2010	1,127	112	1,016	126
2011	1,152	117	1,035	127
2012	1,117	109	1,009	123
2013	1,123	110	1,013	124
2014	1,116	111	1,005	123
2015	1,115	112	1,003	123

<sup>1</sup> mgd = millions of gallons used per day.

<sup>2</sup> Population source: U.S. Department of Commerce, Bureau of the Census.

## SCHEDULES OF DEBT CAPACITY INFORMATION

### Revenue Bond Coverage Last Ten Fiscal Years

Years Ended June 30, 2006 - 2015 (in thousands):

YEAR	CASH RECEIPTS \$	PRINCIPAL \$	INTEREST \$	TOTAL \$	Debt Service Requirements <sup>1</sup>	
					FIRST RESOLUTION DEBT SERVICE COVERAGE	SECOND RESOLUTION DEBT SERVICE COVERAGE <sup>2</sup>
2006	1,931,927	197,602	439,839	637,441	3.76	3.01
2007	1,994,909	200,780	483,661	684,441	3.83	2.89
2008	2,236,541	201,791	556,627	758,418	4.23	2.92
2009	2,400,849	204,530	575,476	780,006	4.67	3.05
2010	2,622,290	249,093	592,194	841,287	5.24	3.09
2011	3,039,374	345,591	778,235	1,123,826	5.77	2.67
2012	3,270,827	378,042	700,658	1,078,700	7.41	2.98
2013	3,512,710	343,287	617,189	960,476	10.32	3.61
2014	3,728,823	359,259	415,611	774,870	12.62	4.76
2015	3,911,463	291,955	163,574	455,529	19.72	8.49

<sup>1</sup> Debt service requirements include First Resolution debt service and Second Resolution debt service, net of subsidy from the NYS Environmental Facilities Corporation, and surplus revenues carried forward from the prior fiscal year.

<sup>2</sup> Revenue for coverage purposes for Second Resolution is net of Authority expenses.

### Ratio of Debt Outstanding - Ten Year Trend

Years Ended June 30, 2006 - 2015 (in thousands):

YEAR	TOTAL DEBT OUTSTANDING \$	DEBT PER CAPITAL
2006	15,677,283	1.96
2007	17,046,375	2.13
2008	19,010,299	2.36
2009	21,619,470	2.66
2010	23,728,997	2.90
2011	26,275,774	3.17
2012	27,992,861	3.35
2013	28,864,590	3.42
2014	30,144,755	3.55
2015	29,941,881	N/A

N/A = data not available

### Ten Largest Customers

NAME	FISCAL 2015 BILLED
New York City Housing Authority	\$182,254,474
The City of New York	109,854,643
River Bay Corporation (Co-op City)	15,584,217
Consolidated Edison, Inc.	15,583,568
Port Authority of New York and New Jersey	15,410,724
New York City Health and Hospital Corporation	13,331,005
New York City Transit	12,646,558
The Parkchester Condo (North & South)	8,655,940
New York Presbyterian Hospital	8,017,635
Peter Cooper Village/Stuyvesant Town	7,776,933

## DEMOGRAPHIC AND ECONOMIC INFORMATION

### Population - Ten Year Trend

YEAR	UNITED STATES	PERCENT CHANGE FROM PRIOR PERIOD	CITY OF NEW YORK	PERCENT CHANGE FROM PRIOR PERIOD
2005	295,516,599	0.93	8,013,368	-0.37
2006	298,379,912	0.97	7,993,906	-0.24
2007	301,231,207	0.96	8,013,775	0.25
2008	304,093,966	0.95	8,068,195	0.68
2009	306,771,529	0.88	8,131,574	0.79
2010	309,347,057	0.84	8,191,853	0.74
2011	311,721,632	0.77	8,287,238	1.16
2012	314,112,078	0.77	8,365,903	0.95
2013	316,497,531	0.76	8,438,379	0.87
2014	318,857,056	0.75	8,491,079	0.62

### Personal Income - Ten Year Trend:

YEAR	Personal Income			Per Capita		
	UNITED STATES (\$ BILLIONS)	CITY OF NEW YORK (\$ BILLIONS)	NEW YORK CITY AS A PERCENTAGE OF THE UNITED STATES	UNITED STATES (\$)	CITY OF NEW YORK (\$)	NEW YORK CITY AS A PERCENTAGE OF THE UNITED STATES
2005	10,610	345.5	3.26	35,904	43,114	120.1%
2006	11,381	377.7	3.32	38,144	47,247	123.9
2007	11,995	415.3	3.46	39,821	51,827	130.2
2008	12,493	419.6	3.36	41,082	52,006	126.6
2009	12,079	407.9	3.38	39,376	50,167	127.4
2010	12,460	431.8	3.47	40,277	52,708	130.9
2011	13,233	457.6	3.46	42,453	55,217	130.1
2012	13,904	474.8	3.42	44,266	56,759	128.2
2013	14,064	481.6	3.42	44,438	57,069	128.4
2014	14,683	507.3	3.45	46,049	59,741	129.7

N/A = data not available.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Amounts as of November 30, 2015.

## DEMOGRAPHIC AND ECONOMIC INFORMATION (CONTINUED)

### Unemployment Rate - Ten Year Trend

YEAR	CITY OF NEW YORK %	CHANGE FROM PRIOR PERIOD %
2005	5.78	-1.28
2006	4.98	-0.81
2007	5.02	0.04
2008	5.63	0.61
2009	9.32	3.7
2010	9.54	0.22
2011	9.10	-0.44
2012	9.37	0.27
2013	8.80	-0.57
2014	7.26	-1.54

Source: NY State, Department of Labor.

### Ten Largest Employers

NAME	NUMBER OF EMPLOYEES, 2013
City of New York	151,678
New York City Department of Education	119,618
United States Government	80,900
State of New York	69,926
Metropolitan Transportation Authority	67,381
North Shore-LIJ Health System	48,650
JPMorgan Chase & Co.	37,363
New York City Health and Hospitals Corp.	35,044
Mount Sinai Health System	32,056
Macy's Inc.	31,200

Source: Crain's New York Business - Book of Lists 2015.

## OPERATING INFORMATION

### Water Pollution Control Plants Daily Flow

PLANT	DESIGN FLOW (MGD) <sup>1</sup>	12 Month Avg. (mgd) <sup>1</sup>	
		JULY '13 - JULY '14	JULY '14 - JULY '15
Wards Island	275	204	209
North River	170	113	116
Hunts Point	200	125	120
26th Ward	85	45	45
Coney Island	110	88	85
Owl's Head	120	93	94
Newtown Creek	310	215	217
Red Hook	60	28	27
Jamaica	100	78	78
Tallmans Island	80	56	58
Bowery Bay	150	106	109
Rockaway	45	15	16
Oakwood Beach	40	29	28
Port Richmond	60	28	30
<b>Total</b>	<b>1,805</b>	<b>1,223</b>	<b>1,232</b>

<sup>1</sup> mgd = millions of gallons of water.

### Water System Tunnels and Aqueducts Length Diameter Transmission In Service

	CONNECTIONS	LENGTH (MILES)	DIAMETER (FEET) <sup>1</sup>	IN SERVICE DATE
<b>Tunnels Upstate</b>				
	Shandanken	18.1	11.5 x 10.25 <sup>1</sup>	1924
	West Delaware	44.0	11.33	1964
	East Delaware	25.0	11.33	1955
	Neversink	6.0	10	1954
<b>Aqueducts</b>				
New Croton	New Croton to Jerome Park	24.0	3.5 x 13.6 <sup>1</sup>	1893
	Jerome Park to 135 St. Gatehouse	9.0	12.25-10.5 <sup>2</sup>	1893
	Croton Water Treatment Plant (CWTP) Raw Water	0.2	12	2015
	CWTP Low-Level Service Treated Water	0.8	9	2015
	CWTP High-Level Service Treated Water	0.7	9	2015
Catskill	Ashokan to Kensico	75.0	17 x 17.5 <sup>1</sup>	1915
	Kensico to Hillview	17.0	17 x 18 <sup>1</sup>	1915
Delaware	Rondout to West Branch	44.2	13.5	1944
	West Branch to Kensico	27.2	15	1943
	Kensico to Hillview	13.6	19.5	1942
<b>Tunnels Downstate</b>				
Tunnel 1	Hillview to distribution system	18.0	15-11 <sup>2</sup>	1917
Tunnel 2	Hillview to distribution system	20.0	17-15 <sup>2</sup>	1936
Tunnel 3, Stage 1	Hillview to distribution system	13.0	24-20 <sup>2</sup>	1998
Tunnel 3, Stage 2	Shaft 13B to distribution system	8.5	10	2013
Richmond Tunnel	Tunnel 2 to Staten Island Uptake Shaft	5.0	10	1970

<sup>1</sup> Tunnels are not round.

<sup>2</sup> Variable diameter tunnels.

**OPERATING INFORMATION (CONTINUED)**

**Number of Employees - Department of Environmental Protection - Ten Year Trend**

<b>YEAR</b>	<b>NUMBER OF EMPLOYEES</b>	<b>PERCENTAGE CHANGE FROM PRIOR PERIOD</b>
2006	5,675	0.55%
2007	5,844	2.98%
2008	5,895	0.87%
2009	5,785	-1.87%
2010	5,749	-0.62%
2011	5,653	-1.67%
2012	5,564	-1.57%
2013	5,567	0.05%
2014	5,547	-0.36%
2015	5,558	0.20%

\*\*\*\*\*