

Combining Financial Statements  
Together with Report of Independent  
Certified Public Accountants

**New York City Water and Sewer System  
A Component Unit of the City of New York**

June 30, 2023 and 2022

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**REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS**

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

**Opinion**

We have audited the accompanying combining financial statements 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, which collectively comprise the combining statements of net position (deficit), and the related combining statements of revenues, expenses, and changes in net position (deficit) and combining statements of cash flows as of and for the years ended June 30, 2023 and 2022, and the related notes to the combining financial statements.

In our opinion, the accompanying combining financial statements present fairly, in all material respects, the financial position of the New York City Municipal Water Finance Authority and the New York City Water Board as of June 30, 2023 and 2022, and the respective changes in their financial position and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

**Basis for opinion**

We conducted our audits of the combining financial statements in accordance with auditing standards generally accepted in the United States of America (US GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Responsibilities of management for the financial statements**

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

In preparing the combining financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for one year after the date the combining financial statements are issued.

### **Auditor's responsibilities for the audit of the financial statements**

Our objectives are to obtain reasonable assurance about whether the combining financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with US GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the combining financial statements.

In performing an audit in accordance with US GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the combining financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the combining financial statements.
- Obtain an understanding of internal control relevant to the audit 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, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the combining financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

### **Required supplementary information**

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 4 through 15, the schedule of changes for total OPEB plan liability and related ratios on page 65, the schedule of the Authority's proportionate share of the net pension liability on page 66, and the schedule of the Authority's pension contributions on page 66 be presented to supplement the basic combining financial statements. Such information is the responsibility of management and, although not a required 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 US GAAS. These limited procedures 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.

*Grant Thornton LLP*

New York, New York  
October 12, 2023

**New York City Water and Sewer System**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)**  
**June 30, 2023 and 2022**

***Overview of the Combining Financial Statements***

The following is an overview of the financial activities of the New York City Water and Sewer System (the "System") as of and for the fiscal years ended June 30, 2023 and 2022. 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 combining financial statements consist of four parts: (1) management's discussion and analysis (this section), (2) the basic combining financial statements, (3) the notes to the combining financial statements and (4) required supplementary information.

The basic combining financial statements of the System, which include the combining statements of net position (deficit), the combining statements of revenues, expenses and changes in net position (deficit) 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 combining financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting. Accordingly, revenues are recognized when earned, and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows.

**New York City Water and Sewer System**

**MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED**

**June 30, 2023 and 2022**

**Financial Analysis and Results of Operations**

The following summarizes the activities of the System for the fiscal years 2023, 2022, and 2021, respectively (in thousands):

	2023	2022	2021	Variance	
				2023 vs 2022	2022 vs 2021
<b>REVENUES:</b>					
Operating revenues:					
Water supply and distribution	\$ 1,582,456	\$ 1,441,310	\$ 1,375,769	\$ 141,146	\$ 65,541
Sewer collection and treatment	2,516,104	2,291,683	2,187,473	224,421	104,210
Bad debt expense	(98,632)	(10,013)	(81,390)	(88,619)	71,377
Other operating revenues	203,039	156,062	174,139	46,977	(18,077)
Total operating revenues	<u>4,202,967</u>	<u>3,879,042</u>	<u>3,655,991</u>	<u>323,925</u>	<u>223,051</u>
Non-operating revenues:					
Subsidies/grants	183,001	156,389	154,105	26,612	2,284
Investment income (loss)	96,007	(5,985)	1,949	101,992	(7,934)
Total non-operating revenues	<u>279,008</u>	<u>150,404</u>	<u>156,054</u>	<u>128,604</u>	<u>(5,650)</u>
Total revenues	<u>4,481,975</u>	<u>4,029,446</u>	<u>3,812,045</u>	<u>452,529</u>	<u>217,403</u>
<b>EXPENSES:</b>					
Other operating expenses	164,464	89,395	128,064	75,069	(38,669)
Operations and maintenance	1,710,007	1,574,864	1,687,273	135,143	(112,409)
General and administrative	47,153	46,450	46,600	703	(150)
Depreciation and amortization	1,022,165	1,037,925	973,433	(15,760)	64,492
Capital distributions	161,577	37,967	23,090	123,610	14,877
Net loss on retirement and impairment of capital assets	1,566	3,080	3,540	(1,514)	(460)
Gain on defeasance	-	(9,244)	(11,568)	9,244	2,324
Interest expense and cost of issuance	1,161,526	1,049,642	1,075,697	111,884	(26,055)
Total expenses	<u>4,268,458</u>	<u>3,830,079</u>	<u>3,926,129</u>	<u>438,379</u>	<u>(96,050)</u>
Net income (loss) before capital contributions	213,517	199,367	(114,084)	14,150	313,451
CAPITAL CONTRIBUTIONS	<u>19,765</u>	<u>18,544</u>	<u>24,463</u>	<u>1,221</u>	<u>(5,919)</u>
CHANGE IN NET POSITION (DEFICIT)	233,282	217,911	(89,621)	15,371	307,532
NET POSITION (DEFICIT) - Beginning	1,660,466	1,442,555	1,532,176	217,911	(89,621)
NET POSITION (DEFICIT) - Ending	<u>\$ 1,893,748</u>	<u>\$ 1,660,466</u>	<u>\$ 1,442,555</u>	<u>\$ 233,282</u>	<u>\$ 217,911</u>

## New York City Water and Sewer System

### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2023 and 2022

#### **Operating Revenues**

Operating revenues are comprised of water supply and distribution, sewer collection and treatment, bad debt expense, and other operating revenues.

#### **2023-2022**

Operating revenues increased by \$324 million, or 8.4% compared to fiscal year 2022. The increase in revenues reflects a combination of (a) 4.90% rate increase for fiscal year 2023, (b) an overall increase in water consumption by customers, and (c) revenues received from customers participating in the Board's Water Bill Amnesty Program and from amounts received through the New York State Office of Temporary Disability Assistance's Low Income Household Water Assistance Program.

Bad debt expense increased by \$88.6 million. During fiscal year 2023, management reviewed the methodology for estimating accounts receivable and reserves for non-utility charges and updated its methodology for reserving those balances.

#### **2022-2021**

Operating revenues increased by \$223 million, or 6.1% compared to fiscal year 2021. The increase in revenues reflects a combination of (a) 2.76% rate increase for fiscal year 2022, (b) an overall increase in water consumption by customers.

#### **Other Operating Revenues**

The following further details other operating revenues for fiscal years 2023, 2022, and 2021, respectively (in thousands):

	2023	2022	2021	Variance	
				2023 vs 2022	2022 vs 2021
Upstate water fees	\$ 92,645	\$ 76,071	\$ 89,016	\$ 16,574	\$ (12,945)
Late payment fees	69,092	29,864	31,854	39,228	(1,990)
Change in residual interest in sold liens	114	-	(4,653)	114	4,653
Connection fees and permits	10,391	9,793	13,569	598	(3,776)
Service line protection program	30,797	40,334	44,353	(9,537)	(4,019)
<b>Total other operating revenues</b>	<b>\$ 203,039</b>	<b>\$ 156,062</b>	<b>\$ 174,139</b>	<b>\$ 46,977</b>	<b>\$ (18,077)</b>

#### **2023-2022**

Upstate water fees increased by \$16.6 million. This was due to a combination of an increase in the volume of water supplied to these customers, including increases to the volume of water sold at both the entitlement and excess rates, and increases to the entitlement and excess rates of 1.4% and 4.9%.

Late payment fees increased by \$39.2 million compared to fiscal year 2022 due to more payments made for delinquent accounts, an increase in the average effective interest rate the Board was authorized by the New York City Council to charge, and the ability of DEP's new billing system to charge multiple tiers of interest rates depending on assessed property values. This amount fluctuates depending on the timeliness of customer payment.



**New York City Water and Sewer System**

**MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED**

**June 30, 2023 and 2022**

The amounts received for the service line protection program decreased by \$9.5 million, due to a decrease in the number of policies in effect during the year and an increase in customer delinquencies.

**2022-2021**

Upstate water fees decreased by \$12.9 million. This was due primarily to a decrease in the volume of water supplied to these customers, including decreases to the volume of water sold at both the entitlement and excess rates.

Late payment fees decreased by \$2.0 million compared to fiscal year 2021 due to fewer payments made for delinquent accounts. This amount fluctuates depending on the timeliness of customer payment.

The amounts received for the service line protection program decreased by \$4.0 million. The number of effective policies decreased from approximately 272 thousand on June 30, 2021, to approximately 236 thousand by the end of fiscal year 2022.

**Non-Operating Revenues**

Non-operating revenues are comprised of subsidies, grants and investment income.

**2023-2022**

Investment income increased by \$102 million compared to fiscal year 2022. The increase was mainly due to higher yields on new securities purchased and more funds available to invest during fiscal year 2023.

**2022-2021**

Investment income decreased by \$7.9 million compared to fiscal year 2021. The decline was mainly due to unrealized losses on fixed income investments because of a decline in value of fixed income investments as a result of higher forward interest rates.

**Operating Expenses**

Operating expenses are comprised of operations and maintenance, general and administrative, depreciation and amortization, and other operating expenses.

**2023-2022**

Total operations and maintenance expense increased by \$135 million or 8.6% compared to fiscal year 2022. This is due primarily to the City's collective bargaining settlement with DC37, an increase in the rate used to calculate fringe benefits, and increases in other than personal services expenses.

Depreciation and amortization decreased by \$15.8 million compared to fiscal year 2022.

Other operating expenses increased \$75.1 million compared to fiscal year 2022, primarily due to increases in program expenses, pollution remediation expenses, and expenses related to the System's filtration avoidance determination.

**2022-2021**

Total operations and maintenance expense decreased by \$112.4 million or 6.7% compared to fiscal year 2021. This is due primarily to the City not requesting a rental payment in fiscal year 2022 offset by an increase in the wastewater operating cost.

Depreciation and amortization increased by \$64.5 million compared to fiscal year 2021.

## New York City Water and Sewer System

### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2023 and 2022

#### ***Non-Operating Expenses***

Non-operating expenses are comprised of interest expense, gain on defeasance, cost of issuance, net loss on retirement of capital assets, and capital distribution.

#### ***2023-2022***

Capital distribution increased by \$124 million in fiscal year 2023 compared to fiscal year 2022. In fiscal year 2023, DEP distributed over \$50.0 million for the South Shore of Staten Island Coastal Storm Risk Management project. DEP is collaborating with the U.S. Army Corps of Engineers and other City agencies to design and construct the protective seawall at the Shoreline Parks in Staten Island. DEP is responsible for the interior drainage and stormwater retention components of this project, including bluebelts, to reduce runoff into the sewer system. The capital distributions amount also varies each year based on the land acquired and then granted to the City.

Interest expense and cost of issuance increased by \$112 million. This increase was primarily due to the issuance of new bonds and higher interest expense, offset by amortization of bond premium and deferred refunding cost which decrease interest expense.

Gain on defeasance decreased by \$9.2 million because there was no cash defeasance in fiscal year 2023.

#### ***2022-2021***

Capital distribution increased by \$14.9 million in fiscal year 2022 compared to fiscal year 2021. This amount varies each year based on the land acquired and then granted to the City.

Interest expense and cost of issuance decreased by \$26.1 million. This decrease was primarily due to the amortization of bond premium and deferred refunding cost which are offsets to interest expense. Prior to such offsets the amount of interest expense was comparable to interest expense in fiscal year 2021.

Fiscal year 2022 cash defeasance resulted in an accounting gain of \$9.2 million. This represents the difference between the carrying value of the defeased bonds and the amount transferred to fund the escrow account (using current resources) to defease the bonds. This gain was reported in the System's combining statement of revenues, expenses and changes in net position (deficit).

#### ***Capital Contributions***

Capital Contributions are comprised of federal, state and other contributions to the System's capital projects.

#### ***2023-2022***

Capital contributions increased by \$1.2 million in fiscal year 2023.

#### ***2022-2021***

Capital contributions decreased by \$5.9 million in fiscal year 2022.

#### ***Change in Net Position (Deficit)***

#### ***2023-2022***

The change in net position (deficit) represents the net total of operating revenues and expenses, non-operating revenues and expenses, and capital contributions. The change in net position (deficit) increased

## New York City Water and Sewer System

### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2023 and 2022

by \$15.4 million in fiscal year 2023 compared to fiscal year 2022. As explained in more detail above, such increase was due primarily to the combined effect of a \$324 million increase in operating revenue and \$102 million increase in investment income, offset by a \$124 million increase in capital distributions, a \$112 million increase in interest expense and cost of issuance, a \$135 million increase in operations and maintenance expense, and a \$75.1 million increase in other operating expenses.

#### **2022-2021**

The change in net position (deficit) represents the net total of operating revenues and expenses, non-operating revenues and expenses, and capital contributions. The change in net position (deficit) increased by \$308 million in fiscal year 2022 compared to fiscal year 2021. As explained in more detail above, such increase was due to the combined effect of a \$217 million increase in total revenue and a \$96.0 million reduction in total expenses offset by a decrease in capital contribution of \$5.9 million.

#### ***Ending Net Position (Deficit)***

#### **2023-2022**

The ending net position (deficit) represents the net total of operating revenues and expenses, non-operating revenues and expenses, capital contributions, and beginning balance of net position (deficit). Ending net position (deficit) increased by \$233 million or 14.0% compared to fiscal year 2022.

#### **2022-2021**

The ending net position (deficit) represents the net total of operating revenues and expenses, non-operating revenues and expenses, capital contributions, and beginning balance of net position (deficit). Ending net position (deficit) increased by \$218 million or 15.1% compared to fiscal year 2021.

**New York City Water and Sewer System**

**MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED**

**June 30, 2023 and 2022**

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

	2023	2022	2021	Variance	
				2023 vs 2022	2022 vs 2021
<b>Assets:</b>					
Current assets	\$ 4,132,652	\$ 3,670,122	\$ 3,264,799	\$ 462,530	\$ 405,323
Residual interest in sold liens	63,505	63,391	59,831	114	3,560
Capital assets	33,555,582	33,058,749	32,525,985	496,833	532,764
Total assets	<u>37,751,739</u>	<u>36,792,262</u>	<u>35,850,615</u>	<u>959,477</u>	<u>941,647</u>
<b>Deferred outflows of resources:</b>					
Accumulated decrease in fair value of hedging derivative	36,705	60,991	120,682	(24,286)	(59,691)
Deferred changes in net pension liability	412	707	514	(295)	193
Unamortized asset retirement obligation	9,640	10,158	11,135	(518)	(977)
Deferred changes in OPEB liability	672	632	414	40	218
Total deferred outflows of resources	<u>47,429</u>	<u>72,488</u>	<u>132,745</u>	<u>(25,059)</u>	<u>(60,257)</u>
Total assets and deferred outflows of resources	<u>\$ 37,799,168</u>	<u>\$ 36,864,750</u>	<u>\$ 35,983,360</u>	<u>\$ 934,418</u>	<u>\$ 881,390</u>
<b>Liabilities:</b>					
Current liabilities	\$ 1,445,031	\$ 1,127,273	\$ 1,006,584	\$ 317,758	\$ 120,689
Long-term liabilities	34,264,447	33,957,896	33,490,664	306,551	467,232
Total liabilities	<u>35,709,478</u>	<u>35,085,169</u>	<u>34,497,248</u>	<u>624,309</u>	<u>587,921</u>
<b>Deferred inflows of resources:</b>					
Deferred changes in net pension liability	36	125	662	(89)	(537)
Deferred changes in OPEB liability	846	1,032	590	(186)	442
Unamortized deferred bond refunding costs	195,060	117,958	42,305	77,102	75,653
Total deferred inflows of resources	<u>195,942</u>	<u>119,115</u>	<u>43,557</u>	<u>76,827</u>	<u>75,558</u>
<b>Net position (deficit):</b>					
Net investment in capital assets	718,114	685,990	598,975	32,124	87,015
Restricted for debt service	1,905,323	1,573,633	1,533,139	331,690	40,494
Restricted for operations and maintenance	322,235	285,656	278,207	36,579	7,449
Unrestricted deficit	(1,051,924)	(884,813)	(967,766)	(167,111)	82,953
Total net position (deficit)	<u>1,893,748</u>	<u>1,660,466</u>	<u>1,442,555</u>	<u>233,282</u>	<u>217,911</u>
Total liabilities, deferred inflows of resources, and net position (deficit)	<u>\$ 37,799,168</u>	<u>\$ 36,864,750</u>	<u>\$ 35,983,360</u>	<u>\$ 934,418</u>	<u>\$ 881,390</u>

## New York City Water and Sewer System

### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2023 and 2022

#### **Current Assets**

Current assets are comprised of restricted cash and cash equivalents, restricted investments, accrued interest and subsidy receivable, receivable from the City, and accounts receivable.

#### **2023-2022**

Current assets increased by \$463 million or 12.6%. Restricted investments, including restricted cash and cash equivalents, increased by \$397 million primarily in the revenue fund and construction fund. Construction fund balances fluctuate due to the timing of bonds issuances and payments to the City for capital costs. Restricted assets held in the Authority's escrow accounts and in the debt service reserve fund declined by \$84.6 million and \$68.0 million, respectively. Assets held in the escrow accounts decline when funds are applied to repayment of debt. The decline in the debt service reserve fund is largely due to a \$60.5 million release of funds held in the reserve fund as a result of a reduction in the reserve requirement. Accounts receivable net of allowance for uncollectable increased by \$84.7 million and receivable from the City decreased by \$23.5 million.

#### **2022-2021**

Current assets increased by \$405 million or 12.4%. Restricted investments, including restricted cash and cash equivalents, increased by \$244 million primarily in the revenue fund and construction fund. Construction fund balances fluctuate due to the timing of bonds issuances and payments to the City for capital costs. Restricted assets held in the Authority's escrow accounts and in the debt service reserve fund declined by \$118 million and \$80.0 million, respectively. Assets held in the escrow accounts decline when funds are applied to repayment of debt. The decline in the debt service reserve fund is largely due to a \$55.0 million release of funds held in the reserve fund as a result of a reduction in the reserve requirement. Accounts receivable net of allowance for uncollectable increased by \$102 million and receivable from the City increased by \$59.3 million.

#### **Current Liabilities**

Current liabilities are comprised of accounts payable, interest payable, revenue received in advance, current portion of bonds and notes payable, payable to the City, and service credits on customer accounts.

#### **2023-2022**

Current liabilities increased by \$318 million, or 28.2%, compared to fiscal year 2022. This was primarily due to an increase in the current portion of bonds and notes payable.

#### **2022-2021**

Current liabilities increased by \$121 million, or 12%, compared to fiscal year 2021. This was primarily due to an increase in the current portion of bonds and notes payable.

#### **Long-Term Liabilities**

Long-term liabilities are comprised of bonds and notes payable, pollution remediation obligation, interest rate swap agreements net of revenue requirements payable to the Authority, net pension liability, net OPEB liability, and other long-term liabilities.

#### **2023-2022**

Long-term liabilities increased by \$307 million, or 1.0%, primarily due to the issuance of new debt to fund capital projects, offset by the retirement of existing debt through debt service payments and refundings.

**New York City Water and Sewer System**

**MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED**

**June 30, 2023 and 2022**

**2022-2021**

Long-term liabilities increased by \$467 million, or 1.4%, primarily due to the issuance of new debt to fund capital projects.

**Capital Assets**

The System's capital assets include buildings, machinery and 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):

	2023	2022	2021	Variance	
				2023 vs 2022	2022 vs 2021
<b>NONDEPRECIABLE ASSETS:</b>					
Utility construction in progress	\$ 6,881,740	\$ 6,271,077	\$ 5,769,893	\$ 610,663	\$ 501,184
<b>DEPRECIABLE ASSETS:</b>					
Utility plant in service:					
Buildings	35,821	35,821	35,821	-	-
Machinery and equipment	5,630,449	5,549,134	5,338,988	81,315	210,146
Vehicles	277,656	287,885	277,890	(10,229)	9,995
Water supply and distribution and wastewater treatment and sewage collection systems	40,416,747	39,595,255	38,752,739	821,492	842,516
Total utility plant in service	46,360,673	45,468,095	44,405,438	892,578	1,062,657
Less accumulated depreciation for:					
Buildings	31,184	30,900	30,618	284	282
Machinery and equipment	3,404,626	3,156,160	2,890,886	248,466	265,274
Vehicles	146,626	146,485	135,200	141	11,285
Water supply and distribution and wastewater treatment and sewage collection systems	16,104,395	15,346,878	14,592,642	757,517	754,236
Total accumulated depreciation	19,686,831	18,680,423	17,649,346	1,006,408	1,031,077
Total utility plant in service - net	26,673,842	26,787,672	26,756,092	(113,830)	31,580
Total capital assets - net	\$ 33,555,582	\$ 33,058,749	\$ 32,525,985	\$ 496,833	\$ 532,764

**2023-2022**

The Authority issues debt to pay for the capital improvements to the System and related costs. Costs related to the System's filtration avoidance determination, including land acquisition in the upstate watershed area and certain costs associated with pollution remediation, are financed with debt but are not recorded as the System's assets on the combining statements of net position (deficit). The cumulative amount of expenses not capitalized as assets as of June 30, 2023, was \$1.77 billion. These costs or distributions are expensed in the System's combining statements of revenues, expenses, and changes in net position (deficit) in the

## New York City Water and Sewer System

### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED

June 30, 2023 and 2022

years incurred. The land purchased is granted to the City and becomes the City's capital asset because it is not subject to the method of capitalization under which the System reports its capital assets.

Total gross additions to non-depreciable assets utility construction in progress were \$1.52 billion and a total of \$909 million of completed projects were moved from utility construction in progress into depreciable assets utility plant in service. This resulted in a \$611 million increase in utility construction in progress, representing a 9.7% net increase compared to fiscal year 2022. The System completed the construction of 1,900 bioswales around the areas of Jamaica Bay Watershed of \$104 million, constructed Level 1 Biological Nutrient Removal system at Coney Island Waste Water Treatment Plant of \$51.8 million, completed the overflow chamber expansions at Westchester Creek of \$30.4 million, and built bluebelt, storm and sanitary sewers, and water main replacement at New Creek in Staten Island for \$49.0 million. Total capital assets, net of depreciation, increased by \$497 million, a 1.5% increase from fiscal year 2022 (see Note 3).

#### **2022-2021**

The Authority issues debt to pay for the capital improvements to the System and related costs. Costs related to the System's filtration avoidance determination, including land acquisition in the upstate watershed area and certain costs associated with pollution remediation, are financed with debt but are not recorded as the System's assets on the combining statements of net position (deficit). The cumulative amount of expenses not capitalized as assets as of June 30, 2022, was \$1.78 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 method of capitalization under which the System reports its capital assets.

Total gross additions to non-depreciable assets utility construction in progress were \$1.57 billion and a total of \$1.07 billion of completed projects were moved from utility construction in progress into depreciable assets utility plant in service. This resulted in a \$501 million increase in utility construction in progress, representing an 8.7% net increase compared to fiscal year 2021. The system completed the construction of a new flow division structure and primary settling tank and other improvements at 26th Ward Waste Water Treatment Plant of \$172 million, installed a high level sewer separation system including more than two miles of high-level storm sewers, 16 miles of sanitary sewers and 2 miles of combined sewers in Canarsie and East New York for \$59.0 million, and over 700 bioswales around Newtown Creek area in the borough of Brooklyn for \$41.0 million. The system also completed the implementation of a new \$27.0 million billing system during the fiscal year. Total capital assets, net of depreciation, increased by \$533 million, a 1.6% increase from fiscal year 2021 (see Note 3).

#### **Deferred Outflows of Resources**

Deferred outflows of resources are comprised of accumulated decrease in fair value of hedging derivative, deferred changes in net pension liability, unamortized asset retirement obligation, and deferred changes in OPEB liability.

#### **2023-2022**

Deferred outflows from hedging decreased by \$24.3 million, or 39.8%, compared to fiscal year 2022 due to an increase in the fair value of the hedging derivative instruments.

#### **2022-2021**

Deferred outflows from hedging decreased by \$59.7 million, or 49.5%, compared to fiscal year 2021 due to an increase in the fair value of the hedging derivative instruments.

**New York City Water and Sewer System**

**MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED**

**June 30, 2023 and 2022**

**Debt Administration**

The debt program of the Authority includes commercial paper notes and long-term debt issued to the public, as well as bond anticipation notes ("BANs") and interest-subsidized bonds issued to the New York State EFC. Commercial paper notes and BANs are interim financing instruments. In fiscal years 2023 and 2022, the Authority did not issue any commercial paper notes, relying instead on bond and BANs proceeds to reimburse the City for payments made for water and sewer capital projects. The Authority periodically issues long-term debt to retire outstanding BANs and commercial paper notes. The Authority also issues refunding bonds to refinance higher coupon debt and uses current revenues to defease debt.

As of June 30, 2023, the total outstanding debt of the System was \$32.3 billion, which was comprised of adjustable-rate bonds, fixed-rate bonds and BANs. The following table summarizes debt program activities for the fiscal year ended June 30, 2023 (in thousands) (see Note 9):

	<b>Outstanding Principal Balance at June 30, 2022</b>	<b>Issued</b>	<b>Principal Retired</b>	<b>Principal Defeased</b>	<b>Outstanding Principal Balance at June 30, 2023</b>
First Resolution Bonds	\$ 789,871	\$ -	\$ -	\$ (334,130)	\$ 455,741
Second Resolution Bonds	30,651,162	3,317,911	(348,911)	(2,003,165)	31,616,997
Second Resolution BANs	101,126	613,298	-	(534,567)	179,857
Total Bonds Payable	<u>\$ 31,542,159</u>	<u>\$ 3,931,209</u>	<u>\$ (348,911)</u>	<u>\$ (2,871,862)</u>	<u>\$ 32,252,595</u>

In fiscal year 2023, the Authority issued \$2.4 billion of water and sewer system revenue bonds to the public, including \$1.8 billion of refunding bonds and \$596 million of new money bonds. Additionally, the Authority issued \$367 million of refunding water and sewer system revenue bonds and \$538 million of new money bonds to EFC. The Authority also drew down \$613 million of proceeds from BANs issued to EFC. The Authority used new money bond proceeds to finance capital improvements to the System and to pay for bond issuance costs.

During fiscal year 2023, the Authority issued \$2.2 billion of bonds to refund \$2.3 billion of outstanding bonds. These refundings resulted in an accounting gain of \$106 million. This amount is deferred and amortized over the shorter of the remaining life of the old debt or the life of the new debt. The Authority reduced its aggregate debt service for principal and interest by \$298 million and obtained an economic benefit (present value savings) of \$200 million.

During fiscal year 2023, the Authority did not legally defease any outstanding bonds using current resources.



**New York City Water and Sewer System**

**MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) - CONTINUED**

**June 30, 2023 and 2022**

As of June 30, 2022, the total outstanding debt of the System was \$31.5 billion, which was comprised of adjustable-rate bonds, fixed-rate bonds and BANs. The following table summarizes debt program activities for the fiscal year ended June 30, 2022 (in thousands) (see Note 9):

	<b>Outstanding Principal Balance at June 30, 2021</b>	<b>Issued</b>	<b>Principal Retired</b>	<b>Principal Deceased</b>	<b>Outstanding Principal Balance at June 30, 2022</b>
First Resolution Bonds	\$ 889,871	\$ -	\$ -	\$ (100,000)	\$ 789,871
Second Resolution Bonds	30,001,898	3,203,869	(297,665)	(2,256,940)	30,651,162
Second Resolution BANs	155,029	375,835	-	(429,738)	101,126
Total Bonds Payable	<u>\$ 31,046,798</u>	<u>\$ 3,579,704</u>	<u>\$ (297,665)</u>	<u>\$ (2,786,678)</u>	<u>\$ 31,542,159</u>

In fiscal year 2022, the Authority issued \$2.5 billion of water and sewer system revenue bonds to the public, including \$1.5 billion of refunding bonds and \$1 billion of new money bonds. Additionally, the Authority issued \$341 million of refunding water and sewer system revenue bonds and \$404 million of new money bonds to EFC. The Authority also drew down \$376 million of proceeds from BANs issued to EFC. The Authority used new money bond proceeds to finance capital improvements to the System and to pay for bond issuance costs.

During fiscal year 2022, the Authority issued \$1.9 billion of bonds to refund \$2.1 billion of outstanding bonds. These refundings resulted in an accounting gain of \$92.6 million. This amount is deferred and amortized over the shorter of the remaining life of the old debt or the life of the new debt. The Authority reduced its aggregate debt service for principal and interest by \$585 million and obtained an economic benefit (present value savings) of \$447 million.

During fiscal year 2022, the Authority legally deceased \$243 million of outstanding bonds using current resources. This resulted in an accounting gain of \$9.2 million and a debt service reduction of \$295 million.

***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.

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**New York City Water and Sewer System**  
**COMBINING STATEMENT OF NET POSITION (DEFICIT)**

**June 30, 2023**

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	New York City			Total
	Water Board	Municipal Water Finance Authority	Eliminations	
(in thousands)				
<b>ASSETS:</b>				
<b>CURRENT ASSETS:</b>				
Restricted cash and cash equivalents	\$ 311,573	\$ 2,677,390	\$ -	\$ 2,988,963
Restricted investments	22,991	4,598	-	27,589
Accrued interest and federal subsidy receivable	692	10,050	-	10,742
Accounts receivable:				
Billed - less allowance for uncollectable water and sewer receivables of \$623,506	700,077	-	-	700,077
Unbilled - less allowance for uncollectable water and sewer receivables of \$29,082	330,526	-	-	330,526
Receivable from The City of New York	74,755	-	-	74,755
<b>Total current assets</b>	<b>1,440,614</b>	<b>2,692,038</b>	<b>-</b>	<b>4,132,652</b>
<b>NON-CURRENT ASSETS:</b>				
Utility plant in service - less accumulated depreciation of \$19,686,831	26,673,842	-	-	26,673,842
Utility plant construction	6,881,740	-	-	6,881,740
<b>Total capital assets</b>	<b>33,555,582</b>	<b>-</b>	<b>-</b>	<b>33,555,582</b>
Residual interest in sold liens	63,505	-	-	63,505
Revenue required to be billed by and received from the Water Board	-	9,829,264	(9,829,264)	-
<b>Total non-current assets</b>	<b>33,619,087</b>	<b>9,829,264</b>	<b>(9,829,264)</b>	<b>33,619,087</b>
<b>Total assets</b>	<b>35,059,701</b>	<b>12,521,302</b>	<b>(9,829,264)</b>	<b>37,751,739</b>
<b>DEFERRED OUTFLOWS OF RESOURCES:</b>				
Accumulated decrease in fair value of hedging derivative	-	36,705	-	36,705
Deferred changes in net pension liability	-	412	-	412
Unamortized asset retirement obligations	9,640	-	-	9,640
Deferred changes in OPEB liability	-	672	-	672
<b>Total deferred outflows of resources</b>	<b>9,640</b>	<b>37,789</b>	<b>-</b>	<b>47,429</b>
<b>Total assets and deferred outflows of resources</b>	<b>\$ 35,069,341</b>	<b>\$ 12,559,091</b>	<b>\$ (9,829,264)</b>	<b>\$ 37,799,168</b>

See notes to combining financial statements.

(Continued)

**New York City Water and Sewer System**

**COMBINING STATEMENT OF NET POSITION (DEFICIT) - CONTINUED**

**June 30, 2023**

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION (DEFICIT)	New York City			Total
	Municipal Water			
	Water Board	Finance Authority	Eliminations	
	(in thousands)			
<b>LIABILITIES:</b>				
<b>CURRENT LIABILITIES:</b>				
Accounts payable	\$ 21,496	\$ 5,507	\$ -	\$ 27,003
Interest payable	-	60,228	-	60,228
Current portion of bonds and notes payable	-	725,401	-	725,401
Payable to the City of New York	-	542,710	-	542,710
Service credits on customer accounts	89,689	-	-	89,689
<b>Total current liabilities</b>	<b>111,185</b>	<b>1,333,846</b>	<b>-</b>	<b>1,445,031</b>
<b>LONG-TERM LIABILITIES:</b>				
Bonds and notes payable	-	34,141,381	-	34,141,381
Pollution remediation obligation	62,240	-	-	62,240
Interest rate swap agreement - net	-	36,705	-	36,705
Revenue requirements payable to the Authority	9,829,264	-	(9,829,264)	-
Net pension liability	-	824	-	824
Net OPEB liability	-	2,024	-	2,024
Other long-term liability	18,048	3,225	-	21,273
<b>Total long-term liabilities</b>	<b>9,909,552</b>	<b>34,184,159</b>	<b>(9,829,264)</b>	<b>34,264,447</b>
<b>Total liabilities</b>	<b>10,020,737</b>	<b>35,518,005</b>	<b>(9,829,264)</b>	<b>35,709,478</b>
<b>DEFERRED INFLOWS OF RESOURCES:</b>				
Unamortized deferred bond refunding costs	-	195,060	-	195,060
Deferred changes in net pension liability	-	36	-	36
Deferred changes in OPEB liability	-	846	-	846
<b>Total deferred inflows of resources</b>	<b>-</b>	<b>195,942</b>	<b>-</b>	<b>195,942</b>
<b>NET POSITION (DEFICIT):</b>				
Net investment in capital assets	33,555,582	(32,837,468)	-	718,114
Restricted for debt service	-	1,905,323	-	1,905,323
Restricted for operations and maintenance	322,235	-	-	322,235
Unrestricted deficit	(8,829,213)	7,777,289	-	(1,051,924)
<b>Total net position (deficit)</b>	<b>25,048,604</b>	<b>(23,154,856)</b>	<b>-</b>	<b>1,893,748</b>
<b>Total liabilities, deferred inflows of resources and net position (deficit)</b>	<b>\$ 35,069,341</b>	<b>\$ 12,559,091</b>	<b>\$ (9,829,264)</b>	<b>\$ 37,799,168</b>

See notes to combining financial statements.

(Concluded)

**New York City Water and Sewer System**  
**COMBINING STATEMENT OF NET POSITION (DEFICIT)**

**June 30, 2022**

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	New York City			Total
	Water Board	Municipal Water Finance Authority	Eliminations	
(in thousands)				
<b>ASSETS:</b>				
<b>CURRENT ASSETS:</b>				
Restricted cash and cash equivalents	\$ 161,004	\$ 2,033,116	\$ -	\$ 2,194,120
Restricted investments	136,920	288,790	-	425,710
Accrued interest and federal subsidy receivable	160	5,972	-	6,132
Accounts receivable:				
Billed - less allowance for uncollectable water and sewer receivables of \$525,680	618,947	-	-	618,947
Unbilled - less allowance for uncollectable water and sewer receivables of \$28,277	326,986	-	-	326,986
Receivable from The City of New York	98,227	-	-	98,227
<b>Total current assets</b>	<b>1,342,244</b>	<b>2,327,878</b>	<b>-</b>	<b>3,670,122</b>
<b>NON-CURRENT ASSETS:</b>				
Utility plant in service - less accumulated depreciation of \$18,680,423	26,787,672	-	-	26,787,672
Utility plant construction	6,271,077	-	-	6,271,077
<b>Total capital assets</b>	<b>33,058,749</b>	<b>-</b>	<b>-</b>	<b>33,058,749</b>
Residual interest in sold liens	63,391	-	-	63,391
Revenue required to be billed by and received from the Water Board	-	10,437,153	(10,437,153)	-
<b>Total non-current assets</b>	<b>33,122,140</b>	<b>10,437,153</b>	<b>(10,437,153)</b>	<b>33,122,140</b>
<b>Total assets</b>	<b>34,464,384</b>	<b>12,765,031</b>	<b>(10,437,153)</b>	<b>36,792,262</b>
<b>DEFERRED OUTFLOWS OF RESOURCES:</b>				
Accumulated decrease in fair value of hedging derivative	-	60,991	-	60,991
Deferred changes in net pension liability	-	707	-	707
Unamortized asset retirement obligations	10,158	-	-	10,158
Deferred changes in OPEB liability	-	632	-	632
<b>Total deferred outflows of resources</b>	<b>10,158</b>	<b>62,330</b>	<b>-</b>	<b>72,488</b>
<b>Total assets and deferred outflows of resources</b>	<b>\$ 34,474,542</b>	<b>\$ 12,827,361</b>	<b>\$ (10,437,153)</b>	<b>\$ 36,864,750</b>

See notes to combining financial statements.

(Continued)

**New York City Water and Sewer System**

**COMBINING STATEMENT OF NET POSITION (DEFICIT) - CONTINUED**

**June 30, 2022**

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION (DEFICIT)	New York City			Total
	Water Board	Municipal Water	Eliminations	
		Finance Authority		
(in thousands)				
<b>LIABILITIES:</b>				
<b>CURRENT LIABILITIES:</b>				
Accounts payable	\$ 13,565	\$ 5,420	\$ -	\$ 18,985
Interest payable	-	53,531	-	53,531
Current portion of bonds and notes payable	-	435,969	-	435,969
Payable to the City of New York	-	523,152	-	523,152
Service credits on customer accounts	95,636	-	-	95,636
<b>Total current liabilities</b>	<b>109,201</b>	<b>1,018,072</b>	<b>-</b>	<b>1,127,273</b>
<b>LONG-TERM LIABILITIES:</b>				
Bonds and notes payable	-	33,822,909	-	33,822,909
Pollution remediation obligation	51,678	-	-	51,678
Interest rate swap agreement - net	-	60,991	-	60,991
Revenue requirements payable to the Authority	10,437,153	-	(10,437,153)	-
Net pension liability	-	1,014	-	1,014
Net OPEB liability	-	1,771	-	1,771
Other long-term liability	17,726	1,807	-	19,533
<b>Total long-term liabilities</b>	<b>10,506,557</b>	<b>33,888,492</b>	<b>(10,437,153)</b>	<b>33,957,896</b>
<b>Total liabilities</b>	<b>10,615,758</b>	<b>34,906,564</b>	<b>(10,437,153)</b>	<b>35,085,169</b>
<b>DEFERRED INFLOWS OF RESOURCES:</b>				
Unamortized deferred bond refunding costs	-	117,958	-	117,958
Deferred changes in net pension liability	-	125	-	125
Deferred changes in OPEB liability	-	1,032	-	1,032
<b>Total deferred inflows of resources</b>	<b>-</b>	<b>119,115</b>	<b>-</b>	<b>119,115</b>
<b>NET POSITION (DEFICIT):</b>				
Net investment in capital assets	33,058,749	(32,372,759)	-	685,990
Restricted for debt service	-	1,573,633	-	1,573,633
Restricted for operations and maintenance	285,656	-	-	285,656
Unrestricted deficit	(9,485,621)	8,600,808	-	(884,813)
<b>Total net position (deficit)</b>	<b>23,858,784</b>	<b>(22,198,318)</b>	<b>-</b>	<b>1,660,466</b>
<b>Total liabilities, deferred inflows of resources and net position (deficit)</b>	<b>\$ 34,474,542</b>	<b>\$ 12,827,361</b>	<b>\$ (10,437,153)</b>	<b>\$ 36,864,750</b>

See notes to combining financial statements.

(Concluded)

**New York City Water and Sewer System**  
**COMBINING STATEMENT OF REVENUES, EXPENSES**  
**AND CHANGES IN NET POSITION (DEFICIT)**

For the year ended June 30, 2023

	New York City		Total
	Water Board	Municipal Water Finance Authority	
		(in thousands)	
<b>OPERATING REVENUES:</b>			
Water supply and distribution	\$ 1,582,456	\$ -	\$ 1,582,456
Sewer collection and treatment	2,516,104	-	2,516,104
Bad debt expense	(98,632)	-	(98,632)
Other operating revenues	203,039	-	203,039
<b>Total operating revenues</b>	<b>4,202,967</b>	<b>-</b>	<b>4,202,967</b>
<b>OPERATING EXPENSES:</b>			
Operations and maintenance	1,710,007	-	1,710,007
General and administrative	4,222	42,931	47,153
Other operating expenses	164,464	-	164,464
Depreciation and amortization	1,022,165	-	1,022,165
<b>Total operating expenses</b>	<b>2,900,858</b>	<b>42,931</b>	<b>2,943,789</b>
<b>OPERATING INCOME (LOSS)</b>	<b>1,302,109</b>	<b>(42,931)</b>	<b>1,259,178</b>
<b>NON-OPERATING REVENUES (EXPENSES):</b>			
Interest expense	-	(1,142,733)	(1,142,733)
Gain on defeasance	-	-	-
Cost of issuance	-	(18,793)	(18,793)
Net loss on retirement and impairment of capital assets	(1,566)	-	(1,566)
Subsidy income	-	183,001	183,001
Capital distributions	(161,577)	-	(161,577)
Investment income	31,089	64,918	96,007
<b>NET INCOME (LOSS) BEFORE CAPITAL CONTRIBUTIONS</b>	<b>1,170,055</b>	<b>(956,538)</b>	<b>213,517</b>
Capital contributions	19,765	-	19,765
<b>CHANGE IN NET POSITION (DEFICIT)</b>	<b>1,189,820</b>	<b>(956,538)</b>	<b>233,282</b>
<b>NET POSITION (DEFICIT) - Beginning of year</b>	<b>23,858,784</b>	<b>(22,198,318)</b>	<b>1,660,466</b>
<b>NET POSITION (DEFICIT) - End of year</b>	<b>\$ 25,048,604</b>	<b>\$ (23,154,856)</b>	<b>\$ 1,893,748</b>

See notes to combining financial statements.

**New York City Water and Sewer System**

**COMBINING STATEMENT OF REVENUES, EXPENSES  
AND CHANGES IN NET POSITION (DEFICIT)**

**For the year ended June 30, 2022**

	New York City		Total
	Water Board	Municipal Water Finance Authority (in thousands)	
<b>OPERATING REVENUES:</b>			
Water supply and distribution	\$ 1,441,310	\$ -	\$ 1,441,310
Sewer collection and treatment	2,291,683	-	2,291,683
Bad debt expense	(10,013)	-	(10,013)
Other operating revenues	156,062	-	156,062
<b>Total operating revenues</b>	<b>3,879,042</b>	<b>-</b>	<b>3,879,042</b>
<b>OPERATING EXPENSES:</b>			
Operations and maintenance	1,574,864	-	1,574,864
General and administrative	1,497	44,953	46,450
Other operating expenses	89,395	-	89,395
Depreciation and amortization	1,037,925	-	1,037,925
<b>Total operating expenses</b>	<b>2,703,681</b>	<b>44,953</b>	<b>2,748,634</b>
<b>OPERATING INCOME (LOSS)</b>	<b>1,175,361</b>	<b>(44,953)</b>	<b>1,130,408</b>
<b>NON-OPERATING REVENUES (EXPENSES):</b>			
Interest expense	-	(1,029,524)	(1,029,524)
Gain on defeasance	-	9,244	9,244
Cost of issuance	-	(20,118)	(20,118)
Net loss on retirement and impairment of capital assets	(3,080)	-	(3,080)
Subsidies/grants	-	156,389	156,389
Capital distributions	(37,967)	-	(37,967)
Investment income (loss)	910	(6,895)	(5,985)
<b>NET INCOME (LOSS) BEFORE CAPITAL CONTRIBUTIONS</b>	<b>1,135,224</b>	<b>(935,857)</b>	<b>199,367</b>
Capital contributions	18,544	-	18,544
<b>CHANGE IN NET POSITION (DEFICIT)</b>	<b>1,153,768</b>	<b>(935,857)</b>	<b>217,911</b>
<b>NET POSITION (DEFICIT) - Beginning of year</b>	<b>22,705,016</b>	<b>(21,262,461)</b>	<b>1,442,555</b>
<b>NET POSITION (DEFICIT) - End of year</b>	<b>\$ 23,858,784</b>	<b>\$ (22,198,318)</b>	<b>\$ 1,660,466</b>

See notes to combining financial statements.

**New York City Water and Sewer System**  
**COMBINING STATEMENT OF CASH FLOWS**  
**For the year ended June 30, 2023**

	New York City		Total
	Water Board	Municipal Water Finance Authority (in thousands)	
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Receipts from customers	\$ 4,055,246	\$ -	\$ 4,055,246
Payments for operations and maintenance	(1,723,858)	-	(1,723,858)
Payments for administration	(1,953)	(42,742)	(44,695)
<b>Net cash provided by (used in) operating activities</b>	<b>2,329,435</b>	<b>(42,742)</b>	<b>2,286,693</b>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</b>			
Proceeds from issuing bonds, notes and other borrowings - net of issuance costs	-	4,109,026	4,109,026
Receipts from capital grants awarded to the governmental enterprise	-	33,105	33,105
Receipts from contribution made by other organization	292	-	292
Acquisition and construction of capital assets	-	(1,696,198)	(1,696,198)
Payments by the Water Board to the Authority	(2,323,645)	2,323,645	-
Repayments of bonds, notes and other borrowings	-	(3,221,177)	(3,221,177)
Interest paid on bonds, notes and other borrowings	-	(1,207,510)	(1,207,510)
<b>Net cash provided by (used in) capital and related financial activities</b>	<b>(2,323,353)</b>	<b>340,891</b>	<b>(1,982,462)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Sales and maturities of investments	137,500	207,767	345,267
Purchases of investments	(20,913)	75,557	54,644
Interest on investments	27,900	62,801	90,701
<b>Net cash provided by investing activities</b>	<b>144,487</b>	<b>346,125</b>	<b>490,612</b>
<b>NET INCREASE IN RESTRICTED CASH AND CASH EQUIVALENTS</b>	<b>150,569</b>	<b>644,274</b>	<b>794,843</b>
<b>RESTRICTED CASH AND CASH EQUIVALENTS - Beginning of year</b>	<b>161,004</b>	<b>2,033,116</b>	<b>2,194,120</b>
<b>RESTRICTED CASH AND CASH EQUIVALENTS - End of year</b>	<b>\$ 311,573</b>	<b>\$ 2,677,390</b>	<b>\$ 2,988,963</b>

See notes to combining financial statements.

(Continued)



**New York City Water and Sewer System**  
**COMBINING STATEMENT OF CASH FLOWS - CONTINUED**  
**For the year ended June 30, 2023**

	New York City		Total
	Water Board	Municipal Water Finance Authority (in thousands)	
<b>RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES:</b>			
Operating income (loss)	\$ 1,302,109	\$ (42,931)	\$ 1,259,178
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:			
Amortization	840	-	840
Depreciation	1,021,325	-	1,021,325
Other operating expenses			
paid for with bond proceeds	40,617	-	40,617
Pollution remediation expense	13,310	-	13,310
Changes in assets and liabilities:			
Pollution remediation liability	10,562	-	10,562
Receivables - net	(84,670)	-	(84,670)
Receivable from the City	23,473	-	23,473
Residual interest in sold liens	(114)	-	(114)
Accrued expenses payable	6	-	6
Accounts payable	7,925	189	8,114
Revenues received in advance	-	-	-
Refunds payable	(5,948)	-	(5,948)
<b>NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES</b>	<b>\$ 2,329,435</b>	<b>\$ (42,742)</b>	<b>\$ 2,286,693</b>

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 \$197,890 at June 30, 2023.

Capital expenditures in the amount of \$542,710 had been incurred but not paid at June 30, 2023.

The Water Board received federal, state, and other capital contributions of \$19,765 in fiscal year 2023.

See notes to combining financial statements.

(Concluded)

**New York City Water and Sewer System**  
**COMBINING STATEMENT OF CASH FLOWS**  
**For the year ended June 30, 2022**

	New York City		Total
	Water Board	Municipal Water Finance Authority (in thousands)	
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Receipts from customers	\$ 3,771,301	\$ -	\$ 3,771,301
Payments for operations and maintenance	(1,668,958)	-	(1,668,958)
Payments for administration	(1,503)	(44,805)	(46,308)
<b>Net cash provided by (used in) operating activities</b>	<b>2,100,840</b>	<b>(44,805)</b>	<b>2,056,035</b>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</b>			
Proceeds from issuing bonds, notes and other borrowings - net of issuance costs	-	4,058,457	4,058,457
Receipts from capital grants awarded to the governmental enterprise	-	8,660	8,660
Receipts from contribution made by other organization	292	-	292
Acquisition and construction of capital assets	-	(1,656,440)	(1,656,440)
Payments by the Water Board to the Authority	(2,090,510)	2,090,510	-
Repayments of bonds, notes and other borrowings	-	(3,116,592)	(3,116,592)
Interest paid on bonds, notes and other borrowings	-	(1,095,279)	(1,095,279)
<b>Net cash (used in) provided by capital and related financing activities</b>	<b>(2,090,218)</b>	<b>289,316</b>	<b>(1,800,902)</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Sales and maturities of investments	273,620	171,195	444,815
Purchases of investments	(137,383)	(36,919)	(174,302)
Interest on investments	1,448	15,345	16,793
<b>Net cash provided by investing activities</b>	<b>137,685</b>	<b>149,621</b>	<b>287,306</b>
<b>NET INCREASE IN RESTRICTED CASH AND CASH EQUIVALENTS</b>	<b>148,307</b>	<b>394,132</b>	<b>542,439</b>
<b>RESTRICTED CASH AND CASH EQUIVALENTS - Beginning of year</b>	<b>12,697</b>	<b>1,638,984</b>	<b>1,651,681</b>
<b>RESTRICTED CASH AND CASH EQUIVALENTS - End of year</b>	<b>\$ 161,004</b>	<b>\$ 2,033,116</b>	<b>\$ 2,194,120</b>

See notes to combining financial statements.

(Continued)

**New York City Water and Sewer System**  
**COMBINING STATEMENT OF CASH FLOWS - CONTINUED**  
**For the year ended June 30, 2022**

	New York City		Total
	Water Board	Municipal Water Finance Authority (in thousands)	
<b>RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES:</b>			
Operating income (loss)	\$ 1,175,361	\$ (44,953)	\$ 1,130,408
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:			
Amortization	952	-	952
Depreciation	1,036,973	-	1,036,973
Other operating expenses			
paid for with bond proceeds	16,530	-	16,530
Pollution remediation expense	5,095	-	5,095
Changes in assets and liabilities:			
Pollution remediation liability	6,246	-	6,246
Receivables - net	(101,993)	-	(101,993)
Receivable from the City	(59,349)	-	(59,349)
Residual interest in sold liens	(3,560)	-	(3,560)
Accounts payable	5,260	148	5,408
Revenues received in advance	(8,336)	-	(8,336)
Refunds payable	27,661	-	27,661
<b>NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES</b>	<b>\$ 2,100,840</b>	<b>\$ (44,805)</b>	<b>\$ 2,056,035</b>

The following are the noncash capital and related financing activities:

Interest expense includes the amortization of net (premium) and discount in the amount of \$199,403 at June 30, 2022.

Capital expenditures in the amount of \$523,152 had been incurred but not paid at June 30, 2022.

The Water Board received federal, state, and other capital contributions of \$18,544 in fiscal year 2022.

See notes to combining financial statements.

(Concluded)

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS

June 30, 2023 and 2022

#### NOTE 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 citizenry of 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 also empowers the Authority to issue debt to finance the cost of capital improvements to the System and to refund any and all outstanding bonds and general obligation bonds that the City issued for water and sewer purposes. The Act empowers the Water Board to lease the System from the City and to set and collect water rates, fees, rents and other charges for use of, or for services furnished, rendered, or made available by, the System to generate enough revenue to pay debt service on the Authority's debt and to place the System on a self-sustaining basis.

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

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.

#### NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the System have been prepared using the economic resources measurement focus and 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 improvements of the System. The System reimburses the City for costs incurred for operations and maintenance and issues debt to pay for capital improvements.

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

#### ***Investments and Cash Equivalents***

Investments and cash equivalents primarily consist of securities of the United States and its agencies, guaranteed investment contracts, forward purchase agreements, and the 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 combining statement of cash flows and combining statement of net position (deficit), the System generally considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents.

#### ***Restricted Assets***

Proceeds from the issuance of debt and monies set aside for debt service and operation and maintenance of the System are classified as restricted cash and cash equivalents and restricted investments in the combining statements of net position (deficit). These restrictions are based on the requirements of the applicable bond resolutions.

#### ***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. As of June 30, 2023 and 2022, the Water Board had a receivable from the Tax Lien Trust of \$63.5 million and \$63.4 million, respectively.

#### ***Bond Premium and Discount and Bond Issuance Cost***

Bond premiums and discounts are capitalized and amortized over the life of the related bond issue, using the effective yield method. Bond premiums and discounts are presented as additions or reductions to the face amount of the long-term bonds payable on the combining statement of net position (deficit). The amortized bond premiums and discounts are an off set to interest expense on the combining statement of revenues, expenses and changes in net position (deficit). Bond issuance costs are recognized and expensed in the period incurred, except for bond insurance premiums that are amortized over the life of the related bonds.

#### ***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 \$50,000 or more and a useful life of three 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 accumulated depreciation. Depreciation is computed using the straight-line method based upon estimated useful lives, as follows:

<b>Assets:</b>	<b>Years</b>
Buildings	40-50
Water supply and wastewater treatment systems	15-50
Water distribution and sewage collection systems	15-99
Machinery and equipment	3-35
Vehicles	10

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

Maintenance and repairs of property are recorded as maintenance expense. Replacements and betterments are recorded as additions to utility plant. The System pays for certain improvements of assets that are not owned by the City or the System, as well as certain pollution remediation activities, through bond proceeds. These costs are reported as other operating expenses in the System's combining statement of revenues, expenses and changes in net position (deficit).

#### ***Contributed Capital***

The System received federal, state and other capital contributions of \$19.8 million and \$18.5 million in fiscal years 2023 and 2022, respectively. These amounts are reported in the System's combining statements of revenues, expenses and changes in net position (deficit) as "Capital contributions" below net income (loss) before capital contributions. In addition, the System received \$292 thousand in both fiscal years 2023 and 2022, from Westchester County (the "County") to compensate the System for constructing a water conduit that provides treated water to the County. The County payments are reported as capital contributions in the System's combining statements of revenues, expenses and changes in net position (deficit) below net income (loss) before capital contributions and as receipts from contribution made by other organization in the System's combining statements of cash flows.

#### ***Operating Revenues and Operating Expenses***

Operating revenues consist of services provided to customers of the System. Revenues are reported net of allowances, discounts and refunds and 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, costs incurred for maintenance, repair, and operations of the System; administration costs of the Water Board and the Authority; and rental payments to the City, if requested. In fiscal years 2023 and 2022, no rental payment was requested by 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 reported as a current liability "service credits on customer accounts" and are not included in accounts receivable.

#### ***Unamortized Deferred Bond Refunding Costs***

Deferred bond refunding costs represent the accounting gains or losses incurred in bond refundings. They are reported as "unamortized deferred bond refunding costs in "Deferred Inflows of Resources" and are amortized over the lesser of the remaining life of the old debt or the life of the new debt. The amortized deferred bond refunding cost is an off set to interest expense on the combining statement of revenues, expenses and changes in net position (deficit).

#### ***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 liabilities at the date of the combining financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

#### **Pensions**

Net pension liabilities are required to be recognized and disclosed using the accrual basis of accounting. The Authority recognizes a net pension liability for New York City Employee Retirement System (“NYCERS”) Qualified Pension Plan (Pension Plan”) in which it participates, which represents the Authority’s proportional share of excess total pension liability over the Pension Plan assets, actuarially 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. The change in the Authority’s proportion of the collective net pension liability and collective deferred outflows of resources and deferred inflows 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.

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 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.

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.

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 other inputs are recognized as deferred outflows of resources or deferred inflows 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 Pension 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 March 2020, GASB issued Statement No. 93, *Replacement of Interbank Offered Rates*, (“GASB 93”). GASB 93 addresses those and other accounting and financial reporting implications that result from the replacement of an interbank offered rate—most notably, the London Interbank Offered Rate (“LIBOR”) resulting from global reference rate reform. LIBOR was expected to cease to exist in its current form at the end of 2021, prompting governments to amend or replace financial instruments for the purpose of replacing LIBOR with other reference rates, by either changing the

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

reference rate or adding or changing fallback provisions related to the reference rate. Subsequently, LIBOR's administrator, the ICE Benchmark Administration, announced that the most widely used United States Dollar LIBOR tenors would continue to be published until June 30, 2023. The removal of LIBOR as an appropriate benchmark interest rate is effective for reporting periods ending after December 31, 2021. All other requirements for GASB 93 are effective for reporting periods beginning after June 15, 2020. (Postponed paragraphs 13 and 14 to fiscal years beginning after June 15, 2021. See GASB 95 below). The adoption of GASB 93 did not have an impact on the System's combining financial statements, as during the fiscal year, the Authority opted into the Fallback Protocol published on October 23, 2020 by the International Swaps and Derivatives Association, which provides a mechanism to incorporate the fallback rate equivalent.

- In March 2020, GASB issued Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements* ("GASB 94"). GASB 94 improves financial reporting by addressing issues related to public-private and public-public partnership arrangements ("PPPs") and also provides guidance for accounting and financial reporting for availability payment arrangements ("APAs"). The requirements for GASB 94 are effective for fiscal years beginning after June 15, 2022, and all reporting periods thereafter. Adoption of GASB 94, did not have an impact on the System's combining financial statements as it does not enter into PPPs or APAs.
- In May 2020, GASB issued Statement No. 95, *Postponement of the Effective Dates of Certain Authoritative Guidance*, ("GASB 95"). GASB 95 provides temporary relief to governments and other stakeholders in light of the COVID-19 pandemic by postponing the effective dates of certain provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018, and later. The incremental adoption of GASB 95 did not have an impact on the System's combining financial statements.
- In May 2020, GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements* ("GASB 96"). GASB 96 provides guidance on the accounting and financial reporting for subscription-based information technology arrangements ("SBITAs") for government end users (governments). The requirements GASB 96 are effective for fiscal years beginning after June 15, 2022, and all reporting periods thereafter. Adoption of GASB 96 did not have a material impact on the System's combining financial statements.
- In April 2022, GASB issued Statement No. 99, *Omnibus 2022*, ("GASB 99"). GASB 99 enhances the comparability in accounting and financial reporting as well as improves the consistency of authoritative literature by addressing 1) several practice issues that have been identified during implementation and application of certain GASB Statements and 2) accounting and financial reporting for financial guarantees. The requirements for GASB 99 are effective for reporting periods ranging from immediate to fiscal years beginning after June 15, 2023. As of fiscal year ending June 30, 2023, the System has adopted all requirements for GASB 99. Adoption of GASB 99 did not have an impact on the System's combining financial statements as the practice issues and the accounting and financial reporting for financial guarantees addressed in GASB 99 are not applicable to the System.
- In June 2022, GASB issued Statement No. 100, *Accounting Changes and Error Corrections An Amendment to GASB Statement No. 62*, ("GASB 100"). GASB 100 enhances accounting and financial reporting requirements for accounting changes and error corrections to provide more understandable, reliable, relevant, consistent, and comparable information for making decisions or assessing accountability. The requirements for GASB 100 are effective for accounting changes and error corrections made in fiscal years beginning after June 15, 2023, and all reporting periods thereafter. Early application is encouraged. The System has not completed the process of evaluating GASB 100 but does not expect it to have an impact on the System's combining financial statements.



**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

- In June 2022, GASB issued Statement No. 101, *Compensated Absences*, (“GASB 101”). GASB 101 updates the recognition and measurement guidance for compensated absences and amends certain previously required disclosures. The requirements for GASB 101 are effective for fiscal years beginning after December 15, 2023, and all reporting periods thereafter. Early application is encouraged. The System has not completed the process of evaluating GASB 101 but does not expect it to have an impact on the System’s combining financial statements.

**NOTE 3 - UTILITY PLANT**

The following is a summary of utility plant activity for the fiscal years ended June 30, 2023 and 2022, respectively (in thousands):

	<b>Balance at June 30, 2021</b>	<b>Additions</b>	<b>Deletions</b>	<b>Balance at June 30, 2022</b>	<b>Additions</b>	<b>Deletions</b>	<b>Balance at June 30, 2023</b>
<b>NONDEPRECIABLE ASSETS:</b>							
Utility construction in progress	\$ 5,769,893	\$ 1,572,816	\$ 1,071,632	\$ 6,271,077	\$ 1,519,724	\$ 909,061	\$ 6,881,740
<b>DEPRECIABLE ASSETS:</b>							
Utility plant in service:							
Buildings	35,821	-	-	35,821	-	-	35,821
Machinery and equipment	5,338,988	214,887	4,741	5,549,134	82,271	956	5,630,449
Vehicles	277,890	9,995	-	287,885	1,889	12,118	277,656
Water supply and distribution and wastewater treatment and sewage collection systems	38,752,739	846,750	4,234	39,595,255	824,901	3,409	40,416,747
Total utility plant in service	44,405,438	1,071,632	8,975	45,468,095	909,061	16,483	46,360,673
Less accumulated depreciation for:							
Buildings	30,618	283	-	30,900	284	-	31,184
Machinery and equipment	2,890,886	267,753	2,479	3,156,160	249,354	888	3,404,626
Vehicles	135,200	11,285	-	146,485	11,434	11,293	146,626
Water supply and distribution and wastewater treatment and sewage collection systems	14,592,642	757,652	3,416	15,346,878	760,253	2,736	16,104,395
Total accumulated depreciation	17,649,346	1,036,973	5,895	18,680,423	1,021,325	14,917	19,686,831
Total utility plant in service - net	26,756,092	34,659	3,080	26,787,672	(112,264)	1,566	26,673,842
<b>Total capital assets - net</b>	<b>\$ 32,525,985</b>	<b>\$ 1,607,475</b>	<b>\$ 1,074,712</b>	<b>\$ 33,058,749</b>	<b>\$ 1,407,460</b>	<b>\$ 910,627</b>	<b>\$ 33,555,582</b>

New York City Water and Sewer System

NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

**NOTE 4 - DEPOSITS AND INVESTMENTS**

***Cash and Cash Equivalents***

The System maintains deposits only at the depository banks designated by the New York City Banking Commission. Further, as required by the Water and Sewer System General Revenue Bond Resolution and the Water and Sewer System Second General Revenue Bond Resolution (the “resolutions”), every bank that holds the Authority’s cash deposits is required to have its principal office in the State of New York and have capital stock, surplus, and undivided earnings aggregating at least \$100 million. As of June 30, 2023 and 2022, cash was comprised of bank deposits and there was no difference between the carrying amounts and bank balances.

Restricted cash and cash equivalents were comprised of the following at June 30, 2023 and 2022, respectively (in thousands):

	<u>2023</u>	<u>2022</u>
<b>Restricted cash and cash equivalents:</b>		
Cash	\$ 12,492	\$ 12,474
Cash equivalents	2,976,471	2,181,646
<b>Total restricted cash and cash equivalents</b>	<b><u>\$ 2,988,963</u></b>	<b><u>\$ 2,194,120</u></b>

***Custodial Credit Risk***

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 deposits or collateral securities that are in the possession of an outside party. Deposits are exposed to custodial credit risk if they are not covered by depository insurance and the deposits are uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution’s trust department or agent but not in the System’s name. As of both June 30, 2023 and 2022, the System had \$12.5 million of deposits. \$500,000 was covered by federal depository insurance and the remaining balances were collateralized with securities held by the trustee’s trust department in the trustee’s name.

***Investments***

The System invests funds that are not immediately required for operations, debt service, or capital expenses. Funds held by the Authority are invested pursuant to the Authority’s bond resolutions and in accordance with its investment guidelines, which restrict investments to obligations of, or guaranteed by, the United States of America, to certain highly rated obligations of the State of New York, to certain certificates of deposit and similar instruments issued by highly rated commercial banks, to certain highly rated corporate securities or commercial paper securities, to certain repurchase agreements with highly rated institutions, to certain investment agreements with highly rated institutions, to certain highly rated money market funds, and to certain highly rated municipal obligations. All accounts held by the Water Board are invested in accordance with the Water Board’s investment guidelines, which restrict investments to obligations of, or guaranteed by, the United States of America and to certain repurchase agreements with highly rated institutions.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

The System had the following restricted investments at June 30, 2023 and 2022 (in thousands):

Restricted Investments	2023			2022		
	Water Board	Municipal Water Finance Authority	Total	Water Board	Municipal Water Finance Authority	Total
U.S. Agencies securities	\$ -	\$ 167,474	\$ 167,474	\$ -	\$ 253,465	\$ 253,465
U.S. Treasury securities	168,375	781,357	949,732	136,920	1,626,498	1,763,418
New York State instrumentalities	-	20,441	20,441	-	23,520	23,520
Money market funds	153,861	1,705,804	1,859,665	148,735	319,412	468,147
Guaranteed investment contracts	-	-	-	-	88,127	88,127
Forward Purchase Agreements	-	6,747	6,747	-	10,678	10,678
Total investments including cash equivalents	322,236	2,681,823	3,004,059	285,655	2,321,700	2,607,355
Less amounts reported as cash equivalents	(299,245)	(2,677,225)	(2,976,470)	(148,735)	(2,032,910)	(2,181,645)
<b>Total Restricted Investments</b>	<b>\$ 22,991</b>	<b>\$ 4,598</b>	<b>\$ 27,589</b>	<b>\$ 136,920</b>	<b>\$ 288,790</b>	<b>\$ 425,710</b>

**Fair Value Hierarchy**

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The System has the following recurring fair value measurements as of June 30, 2023 and 2022 (in thousands):

- U.S. Agencies securities of \$167 million and \$253 million, respectively, are valued using a matrix-pricing model (Level 2 inputs).
- U.S. Treasury securities of \$950 million and \$1.76 billion, respectively, are valued using a matrix-pricing model (Level 2 inputs).
- New York State instrumentalities of \$20.4 million and \$23.5 million, respectively, are valued using a matrix-pricing model (Level 2 inputs).
- Money Market Funds of \$1.86 billion and \$468 million, respectively, are valued using a matrix-pricing model (Level 2 inputs).
- Guaranteed Investment Contracts (“GIC”) of \$0 and \$88.1 million, respectively, are valued using the market approach, with observable inputs and using a matrix pricing technique (Level 2 inputs).
- Forward Purchase Agreements of \$6.7 million and \$10.7 million, respectively, are valued using the market approach, with observable inputs and using a matrix pricing technique (Level 2 inputs).
- Interest Rate Derivatives of (\$36.7) million and (\$61.0) million, respectively, are valued using the income approach (Level 2 inputs).

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

***Credit Risk***

Both the Water Board and the Authority have Board of Directors 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, 2023 and 2022 may 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, the Federal Agriculture Mortgage Corporation, and the Federal Farm Credit Bank. Also, held by the Authority, are direct obligations of agencies or public authorities of the State of New York, which at the time of purchase were rated in one of the two highest rating categories. In addition, the Authority has entered into investment agreements and a guaranteed investment contract 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 were rated 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***

Changes in interest rates impact fair value of investments. Investments by the System are not expected to be liquidated prior to maturity and investment agreements are not expected to be terminated prior to their expiration dates, thereby limiting cash flow exposure from rising interest rates.

Segmented time distribution on investments and cash equivalents as of June 30, 2023 (in thousands):

<u><b>Maturity Date</b></u>	<u><b>Fair Value Amount</b></u>
Under 6 months	\$ 2,932,270
Over 6 months to 1 year	47,024
Over 1 year to 3 years	9,114
Over 3 years and beyond	8,904
Over 3 years and beyond (Forward Purchase Agreement adj.) <sup>1</sup>	6,747
<b>Total</b>	<u><u><b>\$ 3,004,059</b></u></u>

<sup>1</sup>Includes the fair value of \$6.7 million related to Forward Purchase Agreements

Segmented time distribution on investments and cash equivalents as of June 30, 2022 (in thousands):

<u><b>Maturity Date</b></u>	<u><b>Fair Value Amount</b></u>
Under 6 months	\$ 2,358,143
Over 6 months to 1 year	170,845
Over 6 months to 1 year (GIC Adj.) <sup>1</sup>	2,089
Over 1 year to 3 years	53,827
Over 3 years and beyond	11,774
Over 3 years and beyond (Forward Purchase Agreement adj.) <sup>1</sup>	10,678
<b>Total</b>	<u><u><b>\$ 2,607,355</b></u></u>

<sup>1</sup>Includes the fair value of \$10.7 million related to Forward Purchase Agreements and \$2.1 million related to a GIC agreement

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

**Concentration of Credit Risk**

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. The System's investment policy limits the amount the System may invest in any particular issuer. As of June 30, 2023, the System had 31.6% of its restricted investments invested in Federally Guaranteed Securities, 5.6% in U.S. Agency Securities, 0.7% in Municipal Bonds, and 61.9% in First American Government Obligation Money Market Fund.

**Custodial Credit Risk**

With respect to investments, 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 their government, and are held by either the counterparty or the counterparty's trust department or agent but not in the name of the government. All of the investments, except for the GIC, which had a fair value of \$0 and \$88.1 million at June 30, 2023 and 2022, respectively, were not registered in the System's name. The types and amounts of investments are listed in the table on page 33.

**NOTE 5 - DERIVATIVE INSTRUMENTS**

As of June 30, 2023, the Authority had the following (in thousands):

<u>Type</u>	<u>Notional Amount</u>	<u>Effective Date</u>	<u>Maturity Date</u>	<u>Terms</u>	<u>Fair Value</u>	<u>Counterparty Credit Rating (Moody's/S&amp;P/Fitch)</u>
<b>Hedging Derivatives</b>						
Synthetic fixed rate	\$ 240,600	10/24/07	6/15/36	Pay 3.439% receive 67% of 1-month LIBOR	\$ (22,025)	Aa2/AA-/NR
Synthetic fixed rate	<u>160,400</u>	10/24/07	6/15/36	Pay 3.439% receive 67% of 1-month LIBOR	<u>(14,680)</u>	Aa1/A+/AA
Totals	<u>\$ 401,000</u>				<u>\$ (36,705)</u>	

As of June 30, 2022, the Authority had the following (in thousands):

<u>Type</u>	<u>Notional Amount</u>	<u>Effective Date</u>	<u>Maturity Date</u>	<u>Terms</u>	<u>Fair Value</u>	<u>Counterparty Credit Rating (Moody's/S&amp;P/Fitch)</u>
<b>Hedging Derivatives</b>						
Synthetic fixed rate	\$ 240,600	10/24/07	6/15/36	Pay 3.439% receive 67% of 1-month LIBOR	\$ (36,595)	Aa2/AA-/NR
Synthetic fixed rate	<u>160,400</u>	10/24/07	6/15/36	Pay 3.439% receive 67% of 1-month LIBOR	<u>(24,396)</u>	Aa2/A+/AA
Totals	<u>\$ 401,000</u>				<u>\$ (60,991)</u>	

LIBOR: London Interbank Offered Rate Index

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

#### ***Hedging Derivative Instruments***

Effective October 24, 2007, the Authority executed two interest rate exchange agreements, in conjunction with its sale of \$401 million of Adjustable Rate Fiscal 2008 Series BB Second Resolution Bonds. 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 with Goldman Sachs Mitsui Marine Derivative Products in the amount of \$241 million and the second agreement with Bank of America in the amount of \$160 million. These agreements allowed the Authority to achieve a fixed rate cost lower than the cost of 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 risk that the counterparty (or its guarantor) will default under its agreement and the Authority would be left with unhedged variable rate debt. To continue to be hedged, the Authority may have to pay another entity to assume the position of the defaulting counterparty while not receiving an offsetting payment from the defaulting counterparty (full or in part). The Authority seeks to limit credit risk by contracting with highly rated counterparties or requiring highly rated guarantees of the counterparty's obligations. In the event that a counterparty loses its high rating, the Authority has built in two forms of protection into its swap agreements. First, the Authority has required the counterparty to post collateral if its ratings fall below "Aa3" by Moody's and "AA-" by Standard and Poor's and the mark-to-market in the Authority's favor exceeds specified threshold amounts. Second, the Authority has the right to terminate the Interest Rate Exchange Agreement if the counterparty is downgraded below "A3" and "A-" by Moody's and Standard and Poor's, respectively. In addition, the Authority monitors the credit ratings and overall financial condition of its counterparties and may exercise its right to assign the agreement to another counterparty if necessary, in its judgment, to mitigate credit risk, even in the absence of a significant credit rating downgrade.

#### ***Termination Risk***

The counterparties can terminate the agreements upon the occurrence of certain events, 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 "Baa2" and "BBB" by Moody's and Standard & Poor's, respectively.

#### ***Basis Risk***

Basis risk is the risk of a mismatch between two floating rates. For example, the amount the Authority receives under an Interest Rate Exchange Agreement may be lower than the amount the Authority is required to pay on the bonds associated with the transaction, which would require the Authority to make up the shortfall.

#### ***Interest Rate Risk***

Interest rate risk is the risk that changes in long-term interest rates will adversely affect the mark-to-market values of the Authority's swap instruments which may result in termination payments.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

***LIBOR Discontinuation Risk***

On March 5, 2021, IBA and the Financial Conduct Authorities announced a LIBOR cessation date for most USD LIBOR tenors, including 1-month LIBOR, as of June 30, 2023.

The Authority has amended its interest rate agreements by adhering to the Fallback Protocol published by the International Swaps and Derivatives Association on October 23, 2020, which provides a mechanism to incorporate the fallback rate equivalent to the sum of the Secured Overnight Financing Rate ("SOFR") and a spread adjustment of 11.448 basis points. As a result, the derivatives will now have a floating rate of 67% of SOFR plus 7.67 basis points (67% of the fallback rate of SOFR plus 67% of 11.448 basis points), effective July 1, 2023.

***Financial Statements Effect***

The fair value of hedging derivatives at June 30, 2023 and 2022 was \$(36.7) million and \$(61.0) million, respectively. The Authority does not currently own investment derivatives.

**NOTE 6 - AGREEMENT**

The Water Board is a party to an Agreement of Lease (the "Agreement") with the City, which transfers the water and sewer related property to the Water Board for the term of the Agreement. The Agreement term commenced on July 1, 1985, and continues until the later of the fortieth anniversary of the commencement of the Agreement 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 Agreement 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 Agreement property, which includes overhead costs incurred by the City that are attributable to the Agreement property, net of the amount of any federal, the 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 Agreement 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, if requested, each fiscal year in an amount not to exceed the greater of: (a) 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 (b) 15% of principal and interest payable on the bonds of the Authority to be paid within such fiscal year. In fiscal years 2023 and 2022, no rental payment was requested by the City.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

A summary of operations and maintenance and rental expenses for the years ended June 30 is as follows (in thousands):

	<u>2023</u>	<u>2022</u>
Water supply, treatment, transmission and distribution	\$ 589,560	\$ 565,587
Sewer collection and treatment systems	763,091	718,453
The City agency support cost	68,618	67,689
Fringe benefits	277,243	247,941
Judgments and claims	13,306	10,410
Reversal of prior year payables	(1,811)	(35,216)
<b>Total operations and maintenance expenses</b>	<b>\$ 1,710,007</b>	<b>\$ 1,574,864</b>

**NOTE 7 - PAYABLE TO AND RECEIVABLE FROM THE CITY**

As of June 30, 2023 and 2022, 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 \$543 million and \$523 million as of June 30, 2023 and 2022, respectively, net of the amount of state or federal and other capital grants recognized by the City.

As of June 30, 2023, and 2022, the Water Board had a receivable from the City of \$74.8 million and \$98.2 million, respectively. The receivable from the City is a result of the difference between budget estimates and actual expenses for operations and maintenance.

**NOTE 8 - OTHER OPERATING EXPENSES**

A summary of other operating expenses for the years ended June 30 is as follows (in thousands):

	<u>2023</u>	<u>2022</u>
Pollution remediation	\$ 23,872	\$ 11,341
Payments for watershed improvements	38,553	16,268
Program expense	102,039	61,786
Total other operating expenses	\$ 164,464	\$ 89,395

The City's 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 the Authority's 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. 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 the estimates.



## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

In fiscal years 2023 and 2022, the System incurred program expenses of \$102 million and \$61.8 million, respectively.

The System offers its residential customers the option to enroll into a protection program on their water and sewer lines against any breakage for a monthly fee. The fee is included in the participating customer utility bill. This protection program is offered by American Water Resources.

The System also operates two core assistance programs available to eligible customers, the Home Water Assistance Program and the Multi-Family Water Assistance Program. Both programs were offered to customers in fiscal year 2022 and fiscal year 2023. In addition, from time to time the Board also offers one-time customer programs. During fiscal year 2023, the Board made a Water Bill Amnesty Program available to eligible customers, as well as programs benefiting certain affordable multi-family residential properties and accounts participating in the New York State Low Income Household Water Assistance Program.

#### NOTE 9 - LONG-TERM LIABILITIES

##### *Debt Program Description*

The Authority issues debt to finance the capital needs of the System. The Authority's debt is issued under two bond resolutions, the Water and Sewer System General Revenue Bond Resolution (the "First Resolution") and the Water and Sewer System Second General Revenue Bond Resolution ("the Second Resolution", each a "Resolution"). Bonds and notes issued by the Authority are special obligations of the Authority payable solely from and secured by a pledge of and lien on the gross revenues of the System, subject to the priorities set forth in each Resolution, and from money and securities in any of the funds and accounts defined and established under each Resolution, other than the arbitrage rebate fund, subject to the priorities set forth in each Resolution. The Water Board is obligated to set rates and collect revenues sufficient to fund principal and interest requirements, as well as to meet certain debt service coverage and operating cost funding requirements. Each Resolution specifies certain events of default, such as failure to pay debt service, the Authority's filing or otherwise seeking relief in bankruptcy court, failure to comply with the certain provisions of each respective Resolution and certain other governing documents, that under certain conditions could, upon the written request of the holders of not less than a majority in principal amount of the bonds outstanding under each Resolution, result in acceleration of debt service payments.

The debt program of the Authority includes commercial paper notes and long-term debt, as well as bond anticipation notes ("BANs") and interest-subsidized bonds issued to the New York State Environmental Facilities Corporation ("EFC"). While historically, proceeds of commercial paper notes were the main source of funds to reimburse the City for payments made for water and sewer capital projects, in fiscal years 2023 and 2022, the Authority exclusively relied on proceeds from BANs and long-term bond issuances to reimburse the City for the System's capital expenditures. The Authority issues long-term debt to retire commercial paper notes and BANs. The Authority also periodically issues refunding bonds to refinance higher-coupon debt and defeases bonds using current revenues.

The Authority is currently authorized to have outstanding up to \$600 million of commercial paper notes. As of June 30, 2023 and 2022, none were outstanding. As of June 30, 2023 and 2022, there was \$180 million and \$101 million of BANs outstanding, respectively. As of June 30, 2023 and 2022, the BANs principal balance of \$354 million and \$826 million, respectively, was available for future draw down.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

**Changes in Long-Term Liabilities**

In fiscal years 2023 and 2022, the long-term debt was as follows (in thousands):

<b>Bonds/BANs Payable</b>	<b>Balance at</b>			<b>Balance at</b>	<b>Due Within</b>
	<b>June 30, 2022</b>	<b>Additions</b>	<b>Deletions</b>		
First Resolution Bonds	\$ 789,871	\$ -	\$ (334,130)	\$ 455,741	\$ -
Second Resolution Bonds Issued to the Public	24,285,718	2,443,395	(1,669,160)	25,059,953	250,515
Second Resolution Bonds Issued to EFC	5,865,444	874,516	(682,916)	6,057,044	295,030
Second Resolution Notes Issued to EFC	101,126	613,298	(534,567)	179,857	179,857
Second Resolution Bonds-Direct Placement	500,000	-	-	500,000	-
<b>Total before premium and discounts</b>	<b>31,542,159</b>	<b>3,931,209</b>	<b>(3,220,773)</b>	<b>32,252,595</b>	<b>725,401</b>
Premium (discounts) - net	2,716,719	196,609	(299,140)	2,614,187	-
<b>Total debt</b>	<b>\$ 34,258,878</b>	<b>\$ 4,127,818</b>	<b>\$ (3,519,913)</b>	<b>\$ 34,866,782</b>	<b>\$ 725,401</b>

<b>Bonds/BANs Payable</b>	<b>Balance at</b>			<b>Balance at</b>	<b>Due Within</b>
	<b>June 30, 2021</b>	<b>Additions</b>	<b>Deletions</b>		
First Resolution Bonds	\$ 889,871	\$ -	\$ (100,000)	\$ 789,871	\$ -
Second Resolution Bonds Issued to the Public	23,727,554	2,459,409	(1,901,245)	24,285,718	33,765
Second Resolution Bonds Issued to EFC	5,774,344	744,460	(653,360)	5,865,444	307,010
Second Resolution Notes Issued to EFC	155,029	375,835	(429,738)	101,126	95,194
Second Resolution Bonds-Direct Placement	500,000	-	-	500,000	-
<b>Total before premium and discounts</b>	<b>31,046,798</b>	<b>3,579,704</b>	<b>(3,084,343)</b>	<b>31,542,159</b>	<b>435,969</b>
Premium (discounts) - net	2,551,090	498,850	(333,221)	2,716,719	-
<b>Total debt</b>	<b>\$ 33,597,888</b>	<b>\$ 4,078,554</b>	<b>\$ (3,417,564)</b>	<b>\$ 34,258,878</b>	<b>\$ 435,969</b>

**Debt Program Administration**

In fiscal year 2023, the Authority issued \$596 million of new money bonds to the public. The Authority used new money bond proceeds to finance capital improvements to the System and to pay for bond issuance costs. In addition, in fiscal year 2023, the Authority drew down \$613 million of BANs proceeds and applied them to finance capital improvements to the System.

During fiscal year 2023, as further detailed in the bullets below, the Authority issued \$2.2 billion of bonds to refund \$2.3 billion of outstanding bonds. These refunding transactions resulted in a cumulative accounting gain of \$106.4 million. The Authority reduced its aggregate debt service for principal and interest by \$298 million and obtained an economic benefit (present value savings) of \$200 million.

The following details the Authority's refunding activity in fiscal year 2023:

On November 22, 2022, NYW issued \$750 million of tax-exempt fixed rate Second Resolution bonds, Fiscal 2023 Series AA. \$424 million of proceeds from the sale funded capital projects of the System. The bonds also refunded the following Second Resolution fixed rate bonds: \$288 million of Fiscal 2013 Series BB, \$26.7 million of Fiscal 2018 Subseries CC-2, and \$60 million of Fiscal 2019 Subseries DD-2. The bonds have a final maturity of 2052.

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

On December 6, 2022, NYW issued \$233.2 million of fixed rate Second Resolution bonds, Fiscal 2023 Series 1 to EFC. Proceeds of these new money bonds were used to pay off \$229.9 million of Fiscal 2022 Series 8 BANs. The bonds have a final maturity of 2052.

On December 13, 2022, NYW issued \$106.5 million of fixed rate Second Resolution bonds, Fiscal 2023 Series 2 to EFC. Proceeds of these new money bonds were used to pay off \$106.5 million of Fiscal 2017 Series 1 BANs. The Bonds have a final maturity of 2052.

On December 15, 2022, NYW issued \$200 million of tax-exempt variable rate Second Resolution bonds, Fiscal 2023 Series BB. The bonds refunded \$200 million of First Resolution variable rate Fiscal 2012 Series A. The bonds have a final maturity of 2044.

On February 16, 2023, NYW issued \$200 million of tax-exempt variable rate Second Resolution bonds, Fiscal 2023 Series CC. The proceeds from the sale funded capital projects of the System. The bonds have a final maturity of 2053.

On March 21, 2023, NYW issued \$1.29 billion of tax-exempt fixed rate Second Resolution bonds, Fiscal 2023 Series DD. The bonds refunded the following First Resolution variable rate bonds: \$84.1 million of Fiscal 2001 F-2 and \$50 million of Fiscal 2003 Subseries F-1-A; the bonds also refunded the following Second Resolution fixed rate bonds: \$195.4 million of Fiscal 2013 Series CC, \$466.9 million of Fiscal 2013 Series DD, \$244.3 million of Fiscal 2013 Series EE, and \$353.8 million of Fiscal 2014 Series BB. The bonds have a final maturity of 2047.

On June 29, 2023, NYW issued the following fixed rate Second Resolution bonds to EFC: \$194.3 million Fiscal 2023 Series 4, \$187.6 million Fiscal 2023 Series 5, and \$152.8 million Fiscal 2023 Series 6. Proceeds of the bonds were used to refund \$214.2 million of Fiscal 2014 Series 1 and \$152.8 million of Fiscal 2014 Series 2. The new money portion of the bonds were used to pay off \$198.1 million of Fiscal 2022 Series 8 and Fiscal 2023 Series 3 Bond Anticipation Notes. The bonds have a final maturity of 2053.

From time to time the Authority defeases some of its bonds by placing proceeds of refunding bonds or current revenue in irrevocable escrow accounts to provide for all future debt service payments on the defeased bonds. The escrow account assets and the liability for the defeased bonds are not included in the System's combining financial statements. As of June 30, 2023 and 2022, \$222 million and \$564 million, of the Authority's defeased bonds, respectively, were still outstanding.

#### ***Index Rate Bonds***

As of June 30, 2023 and 2022, the Authority had outstanding \$500 million of index rate bonds, which were purchased by a bank through direct placement. The index rate bonds are adjustable rate bonds that pay interest based on a specified market index. The terms of the index rate bonds provide for a 9% rate of interest, commencing on an identified step-up date, if such bonds are not converted or refunded prior to such date. Interest rates on the Authority's index rate bonds cannot exceed 9%. In fiscal years 2023 and 2022, interest rates on the Authority's index rate bonds averaged 3.18% and 0.90%, respectively.

#### ***Adjustable Rate Demand Bonds***

As of June 30, 2023 and 2022, the Authority had \$4.2 billion and \$4.1 billion of adjustable rate demand bonds ("VRDBs") outstanding, respectively. VRDBs may be tendered at the option of their holders prior to their maturity. VRDBs are remarketed by remarketing agents on a daily or weekly basis. Interest rates determined by such remarketing agents for such periods represent the lowest rate of interest that would cause the VRDBs to have a market value equal to par. VRDBs interest rates cannot exceed 9%. In fiscal years 2023 and 2022, interest rates on the Authority's variable rate demand bonds averaged 2.29% and 0.19%, respectively.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

The VRDBs are backed by either a Standby Bond Purchase Agreement (“SBPA”) or a Letter of Credit (“LOC”), providing for the purchase of the VRDBs by a bank in the event they cannot be remarketed. In such case, the interest rate on the VRDBs would typically increase and would be determined by reference to specified index rates plus a spread (in some cases, with a minimum rate), up to a maximum rate of 25%. No VRDBs were held by such banks during the fiscal years ended June 30, 2023 and 2022. SBPAs and LOCs may be terminated by the respective banks upon the occurrence of specified events of default. None of the SBPAs or LOCs supporting adjustable rate demand bonds provides for acceleration. However, in connection with such LOCs, the Authority has agreed that, following a specified period of time in which the LOC bank holds unremarketed VRDBs, the Authority will exchange such VRDBs for refunding bonds maturing within five years and providing for amortization during such period.

The Authority had the following adjustable variable rate demand bonds outstanding as of June 30, 2023:

	<b>Series</b>	<b>Outstanding Principal Amount</b>	<b>SBPA or LOC Provider</b>	<b>Expiration or Optional Termination by Provider</b>
1	2000-C	\$ 107,500,000	Sumitomo Mitsui Banking Corporation	5/2/25
2	2003 F-1-B	50,000,000	US Bank, N.A.	2/27/24
3	2003 F-2	101,655,000	Citibank, N.A.	10/25/24
4	2007 CC-1	160,500,000	Sumitomo Mitsui Banking Corporation	9/14/26
5	2007 CC-2	50,000,000	State Street Bank and Trust Company	1/20/27
6	2008 BB-1	100,000,000	TD Bank, N.A.	3/2/28
7	2008 BB-2	101,000,000	Bank of America, N.A.	10/20/23
8	2008 BB-5	50,000,000	Bank of America, N.A.	10/20/23
9	2009 BB-1	100,435,000	UBS AG	5/4/26
10	2009 BB-2	100,435,000	UBS AG	5/4/26
11	2010 CC	200,000,000	State Street Bank and Trust Company	1/19/28
12	2011 DD-1	100,000,000	TD Bank, N.A.	4/21/28
13	2011 DD-2	75,000,000	JPMorgan Chase Bank, N.A.	11/12/26
14	2011 DD-3A	50,000,000	US Bank, N.A.	9/30/27
15	2011 DD-3B	50,000,000	State Street Bank and Trust Company	9/30/27
16	2011 FF-1	100,000,000	Bank of America, N.A.	3/15/24
17	2011 FF-2	100,000,000	JPMorgan Chase Bank, N.A.	5/27/26
18	2013 AA-1	50,000,000	PNC Bank, NA	10/2/24
19	2013 AA-2	150,000,000	Barclays Bank PLC	3/2/28
20	2014 AA-1	125,000,000	JPMorgan Chase Bank, N.A.	9/17/26
21	2014 AA-2	125,000,000	JPMorgan Chase Bank, N.A.	9/17/26
22	2014 AA-3	100,000,000	TD Bank, N.A.	4/21/28
23	2014 AA-4	100,000,000	State Street Bank and Trust Company	1/20/27
24	2014 AA-5	100,435,000	Mizuho Bank, Ltd.	8/19/25
25	2014 AA-6	100,435,000	Mizuho Bank, Ltd.	8/19/25
26	2015 BB-1	100,000,000	Bank of America, N.A.	7/9/25
27	2015 BB-2	100,000,000	Mizuho Bank, Ltd.	6/13/25
28	2015 BB-3	100,000,000	Sumitomo Mitsui Banking Corporation	7/7/28
29	2015 BB-4	100,000,000	Barclays Bank PLC	6/17/26
30	2016 AA-1	100,000,000	Bank of America, N.A.	10/27/23
31	2016 AA-2	100,000,000	PNC Bank, NA	10/25/24
32	2017 BB-1A	100,000,000	State Street Bank and Trust Company	10/5/26
33	2017 BB-1B	100,000,000	State Street Bank and Trust Company	10/5/26
34	2017 BB-2	50,000,000	State Street Bank and Trust Company	1/20/27
35	2017 BB-3	39,500,000	Sumitomo Mitsui Banking Corporation	9/14/26
36	2019 BB	100,000,000	TD Bank, N.A.	4/27/27
37	2021 EE-1	100,000,000	US Bank, N.A.	3/6/24
38	2021 EE-2	225,500,000	State Street Bank and Trust Company	3/6/26
39	2023 BB-1	100,000,000	Mizuho Bank, Ltd.	12/15/25
40	2023 BB-2	100,000,000	Mizuho Bank, Ltd.	12/15/25
41	2023 CC	200,000,000	Barclays Bank PLC	2/16/28
		<b>\$ 4,162,395,000</b>		

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

The Authority had the following adjustable variable rate demand bonds outstanding as of June 30, 2022:

	<b>Series</b>	<b>Outstanding Principal Amount</b>	<b>SBPA or LOC Provider</b>	<b>Expiration or Optional Termination by Provider</b>
1	2014 AA-5	\$ 100,435,000	Mizuho Bank, Ltd.	08/19/22
2	2014 AA-6	100,435,000	Mizuho Bank, Ltd.	08/19/22
3	2012 A-1	100,000,000	Mizuho Bank, Ltd.	09/27/22
4	2012 A-2	100,000,000	Mizuho Bank, Ltd.	09/27/22
5	2011 DD-3A	50,000,000	US Bank, N.A.	10/16/22
6	2011 DD-3B	50,000,000	State Street Bank and Trust Company	10/16/22
7	2010 CC	200,000,000	Barclays Bank PLC	12/13/22
8	2001-F2	84,130,000	JPMorgan Chase Bank, N.A.	04/11/23
9	2009 BB-1	100,435,000	UBS AG	05/26/23
10	2009 BB-2	100,435,000	UBS AG	05/26/23
11	2003 F-1-A	50,000,000	Barclays Bank PLC	06/17/23
12	2015 BB-3	100,000,000	Sumitomo Mitsui Banking Corporation	07/07/23
13	2014 AA-3	100,000,000	TD Bank, N.A.	09/17/23
14	2008 BB-2	101,000,000	Bank of America, N.A.	10/20/23
15	2008 BB-5	50,000,000	Bank of America, N.A.	10/20/23
16	2016 AA-1	100,000,000	Bank of America, N.A.	10/27/23
17	2011 DD-1	100,000,000	TD Bank, N.A.	11/16/23
18	2003 F-1-B	50,000,000	US Bank, N.A.	02/27/24
19	2021 EE-1	100,000,000	US Bank, N.A.	03/06/24
20	2011 FF-1	100,000,000	Bank of America, N.A.	03/15/24
21	2008 BB-1	100,000,000	Bank of Tokyo-Mitsubishi UFJ, Ltd.	09/13/24
22	2013 AA-2	150,000,000	Bank of Tokyo-Mitsubishi UFJ, Ltd.	09/13/24
23	2013 AA-1	50,000,000	PNC Bank, NA	10/02/24
24	2003 F-2	101,655,000	Citibank, N.A.	10/25/24
25	2016 AA-2	100,000,000	PNC Bank, NA	10/25/24
26	2000-C	107,500,000	Sumitomo Mitsui Banking Corporation	05/04/25
27	2015 BB-2	100,000,000	Mizuho Bank, Ltd.	06/13/25
28	2015 BB-1	100,000,000	Bank of America, N.A.	07/09/25
29	2021 EE-2	225,500,000	State Street Bank and Trust Company	03/06/26
30	2011 FF-2	100,000,000	JPMorgan Chase Bank, N.A.	05/27/26
31	2015 BB-4	100,000,000	Barclays Bank PLC	06/17/26
32	2007 CC-1	160,500,000	Sumitomo Mitsui Banking Corporation	09/14/26
33	2017 BB-3	39,500,000	Sumitomo Mitsui Banking Corporation	09/14/26
34	2014 AA-1	125,000,000	JPMorgan Chase Bank, N.A.	09/17/26
35	2014 AA-2	125,000,000	JPMorgan Chase Bank, N.A.	09/17/26
36	2017 BB-1A	100,000,000	State Street Bank and Trust Company	10/05/26
37	2017 BB-1B	100,000,000	State Street Bank and Trust Company	10/05/26
38	2011 DD-2	75,000,000	JPMorgan Chase Bank, N.A.	11/12/26
39	2014 AA-4	100,000,000	State Street Bank and Trust Company	01/20/27
40	2007 CC-2	50,000,000	State Street Bank and Trust Company	01/20/27
41	2017 BB-2	50,000,000	State Street Bank and Trust Company	01/20/27
42	2019 BB	100,000,000	TD Bank, N.A.	04/27/27
		<b>\$ 4,096,525,000</b>		

**Adjustable Rate Remarketed Securities<sup>SM</sup>**

As of both June 30, 2023 and 2022, the Authority had outstanding \$100 million of Adjustable Rate Remarketed Securities<sup>SM</sup>. The Authority's Adjustable Rate Remarketed Securities<sup>SM</sup> are adjustable rate bonds not supported by a credit or liquidity facility. Upon any failure to remarket tendered Adjustable Rate Remarketed Securities<sup>SM</sup>, such Adjustable Rate Remarketed Securities<sup>SM</sup>, if not purchased by the Authority, will continue to be held by the tendering holders, and all of the Adjustable Rate Remarketed Securities<sup>SM</sup> of the applicable series will bear interest at an increased rate of interest of 12%. In fiscal years 2023 and 2022, interest rates on the Authority's Adjustable Rate Remarketed Securities<sup>SM</sup> averaged 2.77% and 0.75%, respectively.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

Debt service requirements to maturity, including amounts relating to BANs with maturities greater than one year at June 30, 2023 are as follows (in thousands):

Year ending June 30,	Bonds		Bonds and Notes from Direct Borrowings and Direct Placements		Total
	Principal	Interest <sup>1</sup>	Principal	Interest <sup>1</sup>	
2024	\$ 250,515	\$ 1,162,276	\$ 474,887	\$ 288,645	\$ 2,176,323
2025	409,205	1,150,677	299,673	277,394	2,136,949
2026	430,555	1,130,754	297,522	265,205	2,124,036
2027	489,545	1,109,754	307,500	252,997	2,159,796
2028	559,940	1,086,147	309,150	240,573	2,195,810
2029-2033	2,540,085	5,060,645	1,484,375	1,021,449	10,106,554
2034-2038	3,822,620	4,368,561	1,212,760	762,948	10,166,889
2039-2043	5,582,415	3,316,073	950,805	572,472	10,421,765
2044-2048	7,169,050	1,856,370	892,038	396,096	10,313,554
2049-2053	4,261,764	403,664	508,191	296,304	5,469,923
<b>Total</b>	<b>\$ 25,515,694</b>	<b>\$ 20,644,921</b>	<b>\$ 6,736,901</b>	<b>\$ 4,374,083</b>	<b>\$ 57,271,599</b>

<sup>1</sup> Projected interest expense for adjustable rate demand bonds and adjustable rate remarketed securities for fiscal year 2024 and thereafter is calculated using weighted-average interest rate as of June 30, 2023 of 0.73%. Projected interest expense for direct placement index rate bonds for fiscal year 2024 and thereafter is calculated using weighted-average interest rate as of June 30, 2023 of 1.58%. Interest rates on adjustable rate bonds are determined on a daily or weekly basis in accordance with the terms of such bonds.

**Asset Retirement Obligations (“ARO”)**

Existing laws and regulations require the System to take specific action when retiring chemical and petroleum storage tanks. The System has 451 above and underground tanks with a capacity ranging from 10 to 100,000 gallons. The New York State Department of Conservation Under Title 6 of the New York Codes, Rules and Regulations requires that the System take specific steps to permanently take out the service including the removal, transportation and disposal of liquid, sludge, hazardous waste, piping and the tanks themselves; and to take remedial actions on the area surrounding the tanks. Based on contract estimates and invoice for similar projects, the System’s ARO for storage tanks was \$15.1 million and \$14.9 million as of June 30, 2023 and 2022, respectively, with tanks having a remaining useful life ranging from 0 to 39 years.

DEP has entered into office space lease agreements requiring the removal of affixed furnishings including condensed filing systems, HVAC units, and distributions systems and the restoration of premises to original condition existing prior to installation of fixtures for which the System is responsible for paying. Based on engineer and architectural estimates, the ARO for leases was \$2.9 million and \$2.8 million as of June 30, 2023 and 2022, respectively. The remaining lease terms range from two to three years.

**Commitments and Contingencies**

**Construction** - The System had contractual commitments of approximately \$6.8 billion and \$6.0 billion at June 30, 2023 and 2022, respectively, for water and sewer projects.

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

*Risk Financing Activities* - The System is self-insured and carries no commercial or insurance policies other than directors and officer's 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 Agreement, 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 combining 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, 2023, the potential future liability attributable to the System for claims outstanding against the City was estimated to be \$421 million. This amount is included in the estimated liability for unsettled claims, which is reported in the City's statement of net position (deficit). 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 IRC 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 years 2023 and 2022, the System paid \$1.2 million and \$2.9 million, respectively, in arbitrage rebates. At June 30, 2023 and 2022, the Authority had a liability of \$3.2 million and \$1.8 million, respectively. These amounts are included in accounts payable in the combining statements of net position (deficit).

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

**NOTE 10 - RESTRICTED ASSETS**

As of June 30, 2023 and 2022, certain cash, investments, and accrued interest of the System were restricted as follows (in thousands):

	<u>2023</u>	<u>2022</u>
<b>The Water Board</b>		
Operation and maintenance reserve fund	\$ 322,236	\$ 285,656
Local water fund	12,318	12,258
WB Expense Fund	10	10
Subtotal - The Water Board	<u>334,564</u>	<u>297,924</u>
<b>The Authority</b>		
Revenue fund	1,721,502	1,274,282
Debt service reserve fund	241,185	309,211
Construction fund	674,204	608,635
Arbitrage rebate fund	37	73
Escrow accounts	45,060	129,705
Subtotal - The Authority	<u>2,681,988</u>	<u>2,321,906</u>
<b>Total restricted assets</b>	<u><b>\$ 3,016,552</b></u>	<u><b>\$ 2,619,830</b></u>

The operation and maintenance reserve fund is established as a depository to hold a reserve as required by the First Resolution. As of June 30 of each year, the reserve fund 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 local water fund is established as the account to which all revenues are deposited. Its assets are subject to the payment priority set forth in the Resolutions.

The revenue fund is established as a depository to fund the debt service, the Authority's expenses, debt service reserve, and escrow accounts. 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. On or prior to June 30, the balances in the debt service fund are transferred to 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 accounts are established as a depository to refund debt in future years. It is funded through bond proceeds or the revenue fund.



## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

#### NOTE 11 - PENSION PLANS

##### ***General information about the Pension Plan***

*Plan Description* - The Authority's eligible employees are provided with pension benefits through the New York City Employee Retirement System ("NYCERS") Qualified Pension Plan ("QPP" or "Pension Plan"). The Pension Plan is a cost-sharing, multiple-employer defined benefit pension plan administered by NYCERS.

The Pension Plan functions in accordance with existing State statutes and City laws that are the basis by which benefit terms and the Authority's and its members' contribution requirements are established and amended. NYCERS issues a publicly available financial report that can be obtained from NYCERS management at 335 Adams Street, Brooklyn, New York 11201 or 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, 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 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 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. The Authority does not have any Tier I, Tier II, or Tier III 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. Employer contributions are actuarially determined under the One-Year Lag Methodology ("OYLM"). Under the OYLM, the actuarial valuation date is used for calculating the employer contributions for the second following fiscal year. For example, the June 30, 2021 actuarial valuation was used for determining the fiscal year 2023 employer contributions.

Employer contributions are determined annually to be an amount that, together with member contributions and investment income, provides for the Pension Plan assets to be sufficient to pay benefits when due. The aggregate statutory contribution due to NYCERS QPP from all participating employers for fiscal years 2023 and 2022 was \$3.5 billion and \$3.8 billion, respectively, and the amount of the Authority's contribution to the Pension Plan for such fiscal years 2023 and 2022 was \$160 thousand and \$214 thousand, respectively.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

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.

***Information on the Employer's Proportionate Share of the Collective Net Pension Liability***

The Authority's net pension liabilities reported as of June 30, 2023 and 2022 were measured as of those fiscal year-end dates. The total pension liability used to calculate those net pension liabilities were determined by actuarial valuations as of June 30, 2022 and 2021 and rolled forward to the measurement dates of June 30, 2023 and 2022.

Information about the Authority net position and additions to and deductions from NYCERS QPP 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 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, 2022 actuarial valuation to determine the fiscal year 2023 total pension liability:

<b>Item</b>	<b>Assumption</b>
Valuation Date	June 30, 2022 (Lag)
Assumed Rate of Return on Investment	7.0% per annum, net of investment expenses
Post-Retirement Mortality	Tables adopted by the Board of Trustees during fiscal year 2019. Applies mortality improvement scale MP-2020 published by the Society of Actuaries
Active Service: Withdrawal, Death, Disability, and Retirement	Tables adopted by the Board of Trustees during fiscal year 2019. Applies mortality improvement scale MP-2020 published by the Society of Actuaries to active ordinary death mortality rates and pre-commencement mortality rates for deferred vesteds
Salary Increases	Tables adopted by the Board of Trustees during fiscal year 2019. In general, Merit and Promotion Increases plus assumed General Wage increases of 3.0% per year
Inflation	Consumer Price Index (CPI) of 2.50% per year
Assumed Cost-of Living Adjustments	AutoCOLA – 1.5% per year; Escalation – 2.5% per year
Estimates of Certain Obligations	World Trade Center benefits and anticipated increases to pensioner benefits attributable to wage contract settlements

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

**June 30, 2023 and 2022**

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 Chief Actuary of the New York City Retirement Systems (the "Actuary") for use in the determination of Employer Contributions, which are also generally used to determine the total pension liability, as applicable.

In June 2019, Bolton, Inc. issued their actuarial experience study report for the four-year and ten-year periods ended June 30, 2017. Based, in part, on this report, the Actuary proposed and the Boards of Trustees of NYCERS adopted changes in actuarial assumptions including a change to Mortality Improvement Scale MP-2018 beginning in fiscal year 2019. Milliman, Inc. is performing the current experience study that covers the period through June 30, 2021.

In July 2021, the Actuary proposed and the Board of Trustees of NYCERS adopted changes in actuarial assumptions including a change to Mortality Improvement Scale MP-2020 beginning in fiscal year 2021.

#### **Expected Rate of Return**

The long-term expected rate of return was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of the 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 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:

Asset Class	<u>Target Asset Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
U.S. Public Market Equities	27.0%	6.9%
Developed Public Market Equities	12.0	7.2
Emerging Public Market Equities	5.0	9.1
Fixed Income	30.5	2.7
Private Equities	8.0	11.1
Private Real Estate	7.5	7.1
Infrastructure	4.0	6.4
Opportunistic Fixed Income	6.0	8.6
<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, 2023 and 2022, 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 is projected to be available to make all projected future benefit payments of current active and non-active members. Therefore, the long-term expected rate of return on the pension fund investments was applied to all periods of projected benefit payments to determine the total pension liability.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

***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% for fiscal years 2023 and 2022, as well as what the 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:

<b>June 30, 2023</b>			<b>June 30, 2022</b>		
<b>1% Decrease (6.0%)</b>	<b>Current Discount Rate (7.0%)</b>	<b>1% Increase (8.0%)</b>	<b>1% Decrease (6.0%)</b>	<b>Current Discount Rate (7.0%)</b>	<b>1% Increase (5.0%)</b>
\$ 1,335,044	\$ 824,000	\$ 392,466	\$ 1,612,897	\$ 1,013,549	\$ 507,309

***Pension Liability***

At June 30, 2023 and 2022, the Authority reported a liability of \$0.8 million and \$1.0 million, respectively, for its proportionate share of the net pension liability. The Authority's portion 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, 2023 and 2022, the Authority's proportion was 0.005%.

***Pension Expense***

For the years ended June 30, 2023 and 2022, the Authority recognized pension expense of \$176 thousand and \$155 thousand, respectively.

***Deferred Outflows and Inflows of Resources***

At June 30, 2023 and 2022, the Authority reported total deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Fiscal Year 2023</b>		<b>Fiscal Year 2022</b>	
	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Difference between expected and actual experience	\$ 92,693	\$ 3,670	\$ 87,910	\$ 22,277
Changes of assumptions	1	16,747	167	32,423
Net difference between projected and actual earnings on pension plan investments	102,709	-	185,238	-
Changes in proportion and difference between the Authority's contributions and proportionate share of contributions	216,416	15,140	433,650	70,063
<b>Total</b>	<b>\$ 411,819</b>	<b>\$ 35,557</b>	<b>\$ 706,965</b>	<b>\$ 124,763</b>

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at June 30, 2023 will be recognized in pension expense as follows:

<b>Fiscal Year Ended June 30</b>	<b>Fiscal Year 2023</b>	<b>Fiscal Year 2022</b>
2023	\$ -	\$ 72,931
2024	92,886	122,513
2025	89,913	113,561
2026	211,909	260,091
2027	(10,214)	13,105
2028	(8,232)	-

**NOTE 12 - OTHER POST-EMPLOYMENT BENEFITS**

***Plan Description***

The Authority’s Other Postemployment Benefits Plan (“OPEB Plan”) is a single-employer defined benefit plan administered by the New York City Office of Labor Relations. The plan provides certain health and related benefits to eligible retirees and their beneficiaries/dependents of the New York City Municipal Water Finance Authority in accordance with GASB Statement No. 75 (“GASB 75”) *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*.

The OPEB Plan consists of three programs: (1) the New York City Health Benefits Program; (2) Welfare Fund Program; and (3) Medicare Part B Program. 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 the City retirees and eligible beneficiaries/dependents.

The following presents a summary of the Authority’s census data used in the June 30, 2023 and 2022 OPEB actuarial valuations:

<b>Group</b>	<b>2023</b>	<b>2022</b>
Active	10	10
Inactive plan members entitled to but not yet receiving benefits	2	2
Inactive plan members or beneficiaries currently receiving benefits	<u>5</u>	<u>5</u>
<b>Total</b>	<b><u>17</u></b>	<b><u>17</u></b>

***Funding Policy***

The Authority is not required to provide funding for the OPEB Plan, 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, 2023 and 2022, the Authority had five retirees and made contributions of \$70.8 thousands and \$18.8 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 the benchmark plan. The OPEB Plan also reimburses covered retirees and eligible spouse 100% of the Medicare Part B premium rate applicable to a given year, and there is no retiree contribution

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

to the welfare fund (the "Welfare Fund") that covers retirees for various health care benefits not provided through the basic coverage.

**Annual OPEB Cost and Net OPEB Liability**

The Authority's annual OPEB cost is calculated based on the annual expense ("Expense"), an amount that was actuarially determined in accordance with GASB 75. 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, 2022 for the fiscal year ended June 30, 2023, which was the basis for the fiscal year 2023 Expense calculation. Under this method, as used in this OPEB Plan valuation, the actuarial present value ("APV") of benefits ("APVB") of each individual included in the 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 on the valuation date by the APV of future employer normal cost or future member contributions is the total OPEB Plan liability. The excess of the total OPEB Plan liability over the plan fiduciary net position, which represents the assets of the plan, is the net OPEB Plan liability.

All changes in the net OPEB Plan liability as of June 30, 2023 and 2022 are being amortized over the future working lifetime of all plan participants for purposes of calculating the expense except for the amount of change in plan assets, which would be amortized over a five-year period using level-dollar amortization. This plan, however, is not assumed to have any assets.

**Total OPEB Liability**

The Authority's total OPEB Plan liabilities of \$2.0 million and \$1.8 million were measured as of June 30, 2023 and 2022, respectively, and were determined by actuarial valuations as of those dates.

The following table shows changes in the Authority's net OPEB Plan liability for fiscal years 2023 and 2022:

	<u><b>2023</b></u>	<u><b>2022</b></u>
Net OPEB liability – beginning of the year	\$ 1,770,915	\$ 1,927,605
Service cost	70,742	111,586
Interest	73,891	44,251
Differences between expected and actual experience	112,539	334,386
Changes in assumptions or other inputs	66,800	(628,139)
Actual benefit payments	<u>(70,785)</u>	<u>(18,774)</u>
Net changes	253,187	(156,690)
<b>Net OPEB liability – end of the year</b>	<u><b>\$ 2,024,102</b></u>	<u><b>\$ 1,770,915</b></u>

The Authority's annual OPEB Plan expense for fiscal years 2023 and 2022 was as follows:

<b>Components</b>	<u><b>2023</b></u>	<u><b>2022</b></u>
Service costs	\$ 70,742	\$ 111,586
Interest on the total OPEB Plan liability	73,891	44,251
Changes in assumptions or other inputs	(129,096)	(137,436)
Difference between expected and actual experience	<u>82,098</u>	<u>68,048</u>
<b>Total OPEB Plan Expense</b>	<u><b>\$ 97,635</b></u>	<u><b>\$ 86,449</b></u>

## New York City Water and Sewer System

### NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED

June 30, 2023 and 2022

#### ***Funded Status and Funding Progress***

As of June 30, 2023, the most recent actuarial measurement date, the cost was 0% funded. The total OPEB Plan liability for benefits was \$2.0 million, and the plan fiduciary net position was \$0, resulting in a net OPEB Plan liability of \$2.0 million. The covered employee payroll (annual payroll of active employees covered by the OPEB Plan) was \$1.3 million, and the ratio of the net OPEB Plan liability to the covered payroll was 156.3%.

#### ***Actuarial Methods Assumptions and Other Inputs***

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. The actuarial assumptions used in the fiscal year 2023 and the fiscal year 2022 OPEB Plan valuations are a combination of those used in the New York City Employee Retirement Systems (“NYCERS”) pension actuarial valuations and those specific to the OPEB Plan valuations. These assumptions are generally unchanged from the previous valuation except as noted below.

Amounts determined regarding the funded status of the OPEB Plan and the annual Expense 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 total OPEB Plan liability, consistent with the long-term perspective of the calculations.

For fiscal year 2019, the Office of the Actuary (the “OA”) conducted a full review of the actuarial assumptions and methods used to fund the NYCRS. These reviews led to formalized recommendations titled “Proposed Changes in Actuarial Assumptions and Methods Used in Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2018 for [NYCRS],” also referred to as the 2019 Assumptions and Methods (“2019 A&M”) and were adopted by all five of the NYCRS Boards.

On July 27, 2021, the actuary issued a memorandum titled “Proposed Changes to Actuarial Assumptions and Methods.” The actuarial assumptions and methods described in that memorandum amend certain assumptions and methods from the 2019 A&M. This revised set of actuarial assumptions and methods are referred to as the “Revised 2021 A&M.”

The 2019 A&M and Revised 2021 A&M reports are available on the Reports page of the OA website ([www.nyc.gov/actuary](http://www.nyc.gov/actuary)).

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

The OPEB Plan-specific actuarial assumptions used in the fiscal year 2023 OPEB Plan valuation are as follows:

<b>Valuation Date</b>	June 30, 2022
<b>Measurement Date</b>	June 30, 2023
<b>Discount Rate<sup>1</sup></b>	4.13% per annum for the June 30, 2023 measurement date 4.09% per annum for the June 30, 2022 measurement date
<b>Actuarial Cost Method</b>	Entry Age Normal cost method, level percent of pay calculated on an individual basis
<b>Salary Increase</b>	3.00% per annum, which includes an inflation rate of 2.50% and a general wage increase rate of 0.50%
<b>Inflation</b>	Consumer Price Index (CPI) of 2.50% per year

**Per Capita Claims Costs**

GHI/EBCBS plans are insured via a Minimum Premium arrangement, while the HIP and many of the Other HMOs are community-rated. Costs reflect age-adjusted premiums for all plans.

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

<b>Plan</b>	<b>Monthly Rates at Average Age</b>	
	<b>2023</b>	<b>2022</b>
<u>HIP HMO</u>		
Non-Medicare Single	\$ 871.42	\$ 819.68
Non-Medicare Single	2,134.99	2,008.22
Medicare	199.62	190.47
<u>GHI/EBCBS</u>		
Non-Medicare Single	917.92	854.44
Non-Medicare Family	2,409.11	2,242.05
Medicare	201.59	201.80
<u>Other HMOs<sup>1</sup></u>		
Non-Medicare Single	1,302.87	1,242.93
Non-Medicare Family	3,567.29	3,440.67
Medicare Single	311.73	291.71
Medicare Family	620.28	580.41

<sup>1</sup> Other HMO premiums represent the weighted average of the total premium for medical (not prescription drug) coverage, including retiree contributions, of the HMO plans (other than HIP) based on actual enrollment.



**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

**Welfare Fund**

For the fiscal year 2022 valuation, the Welfare Fund contribution reported for fiscal year 2023, including any reported retroactive amounts, was used as the per capita cost for valuation purposes. Reported annual contribution amounts for the last two years for NYCERS are shown in Section V-b of the OPEB Plan valuation report dated September 8, 2023. Welfare Fund rates are based on actual reported union Welfare Fund code for current retirees.

The weighted-average annual contribution rates used for future retirees is shown below.

Retirement Plan	Annual Rate	
	2023	2022
NYCERS	\$ 1,867	\$ 1,858

**Medicare Part B Premiums**

Medicare Part B Premiums are as follows:

Calendar Year	Monthly Premium
2018	\$ 125.85
2019	134.43
2020	143.21
2021	146.97
2022	167.82
2023	164.90

Medicare Part B premium reimbursement amounts have been updated to reflect the actual premium rates announced for calendar years through 2023. Due to limited cost-of-living increase in past Social Security benefits, some Medicare Part B participants were not charged the Medicare Part B premium originally projected or ultimately announced for those years. The prior valuation used a blended estimate as a better representation of future Part B premium costs, while the current valuation assumes the full Part B premium amount.

For the fiscal year 2023 OPEB Plan valuation, the annual premium used was \$1,996.32, which is equal to 12 times an average of the calendar year 2022 and 2023 monthly premiums shown.

The calendar year 2022 monthly premium of \$167.82 was determined using 3.5% of the \$104.90 hold-harmless amount and 96.5% of the \$170.10 rate that was in effect for calendar year 2022. For calendar year 2023, no participants were assumed to be protected by the hold-harmless provision and the monthly premium of \$164.90 was set equal to the calendar year 2023 announced amount.

An additional 11.4% load is added to the base Medicare Part B premium amounts each year to account for the income-related Medicare Part B premiums for high-income individuals. This assumption was updated from the previous valuation to reflect more recent experience.

**Medicare Part B Premium Reimbursement Assumption**

90% of Medicare participants are assumed to claim reimbursement; based on historical data.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

**Health Care Cost Trend Rate (“HCCTR”)**

<u>Year Ending</u>	<u>Pre-Medicare Plans</u>	<u>Medicare Plans</u>	<u>Medicare Part B Premiums</u>	<u>Welfare Fund Contributions</u>
2023	7.00%	4.80%	5.00%	3.50%
2024	7.00	4.80	5.00	3.50
2025	7.00	4.70	5.00	3.50
2026	6.75	4.70	5.00	3.50
2027	6.50	4.60	5.00	3.50
2028	6.25	4.60	5.00	3.50
2029	6.00	4.50	5.00	3.50
2030	5.75	4.50	5.00	3.50
2031	5.50	4.50	5.00	3.50
2032	5.25	4.50	5.00	3.50
2033	5.00	4.50	5.00	3.50
2034	4.75	4.50	5.00	3.50
2035 and Later	4.50	4.50	5.00	3.50

**Age and Gender-Related Morbidity**

The premiums are age and gender adjusted for GHI/EBCBS, HIP and Other HMOs. The assumed relative costs of coverage are consistent with information presented in the 2013 study *Health Care Costs - From Birth to Death*, sponsored by the Society of Actuaries.

For non-Medicare costs, a sample of factors used are:

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.170	0.225	45	0.355	0.495
25	0.146	0.301	50	0.463	0.576
30	0.181	0.428	55	0.608	0.671
35	0.227	0.466	60	0.783	0.783
40	0.286	0.467	64	0.957	0.917

Children costs assumes a factor of 0.229.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

Medicare costs prior to age 65 assume an additional disability-related morbidity factor. A sample of factors are:

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.323	0.422	65	0.919	0.867
25	0.278	0.565	70	0.946	0.885
30	0.346	0.804	75	1.032	0.953
35	0.432	0.876	80	1.122	1.029
40	0.545	0.878	85	1.217	1.116
45	0.676	0.929	90	1.287	1.169
50	0.883	1.082	95	1.304	1.113
55	1.159	1.260	99 and Older	1.281	0.978
60	1.493	1.470			

The age adjustment for the non-Medicare GHI/EBCBS premium reflects a reduction for the estimated margin anticipated to be returned of 4.0% and 2.0% in the GHI and EBCBS portion of the monthly premium, respectively. The GHI portion is \$429.67 out of \$917.92 for single coverage and \$1,139.67 out of \$2,409.11 for family coverage for fiscal year 2023 rates. The EBCBS portion is the remainder of the premium.

Similarly, the age adjustment for the Medicare GHI/EBCBS premium reflects a reduction for the Medicare GHI/EBCBS premium reflects a reduction for the estimated margin anticipated to be returned of 4.0% and 3.0% in the GHI and ECBS portion of the monthly premium, respectively. The GHI portion is \$105.46 out of the \$201.59 for the fiscal year 2023 rates. The EBCBS portion is the remainder of the premium.

**Participation Rates**

Actual elections are used for current retirees. Portions of current retirees not eligible for Medicare are assumed to change elections upon attaining age 65 based on the patterns of elections of Medicare-eligible retirees.

For current retirees who appear to be eligible for health coverage but have not made an election (i.e., non-filers), the valuation reflects single GHI/EBCBS coverage and Part B premium and benefits only, to approximate the obligation if these individuals were to file for coverage. For future retirees, the portion assumed not to file for future benefits, and therefore valued similarly, is 13.0% for NYCERS in 2023. This non-filer group also includes some participants who do not qualify for coverage because they were working less than 20 hours a week at termination.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

Detailed assumptions for future retirees are presented below.

<b>Plan Participation Assumptions</b>	
<b>Plan</b>	<b>NYCERS</b>
<u>Pre-Medicare</u>	
GHI/EBCBS	75%
HIP HMO	18
Other HMO	2
Waiver	5
<u>Medicare</u>	
GHI	75
HIP HMO	16
Other HMO	5
Waiver	4
<u>Post-Medicare Migration</u>	
Other HMO to GHI	0
HIP HMO to GHI	0
GHI to HIP HMO	0
GHI to Other HMO	0
HIP HMO to Other HMO	10
Pre-Medicare Waiver	
To GHI at 65	0
To HIP HMO at 65	0
To Other HMO at 65	20

**Dependent Coverage**

Dependent coverage is assumed to terminate when a retiree dies.

**Dependents**

Child dependents of current retirees are assumed to receive coverage until age 26. Children are assumed to be covered for eight years after retirement.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

Male retirees were assumed to be four years older than their wives, and female retirees were assumed to be two years younger than their husbands. Dependent assumptions based on distribution of coverage of recent retirees are shown in the following table.

<b>Dependent Coverage Assumptions</b>	
Group	NYCERS
<u>Male</u>	
Single Coverage	35%
Spouse	35
Child/No Spouse	8
Spouse and Child	22
<b>Total</b>	<b>100%</b>
<u>Female</u>	
Single Coverage	67%
Spouse	22
Child/No Spouse	7
Spouse and Child	4
<b>Total</b>	<b>100%</b>

**COBRA Benefits**

Employees and beneficiaries who enroll in COBRA coverage contribute 102% of the premium. There is no cost to the Authority 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, who typically utilize services at a much higher rate than active participants

The valuation assumes 15% of employees not eligible for OPEB elect COBRA coverage for 15 months based on experience of other large employers. A lump-sum COBRA cost of \$1,550 was assumed for terminations during fiscal year 2023. This lump-sum amount is increased by the Pre-Medicare HCCTR for future years, but is not adjusted for age-related morbidity.

**Active Off-Payroll ("AOP")**

Active members off payroll on known short-term leave of absence are treated as actives, and the remaining members are included as inactive members entitles to but not yet receiving benefits if they have met the OPEB vesting requirements. Otherwise, they are not included in the valuation.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

***Sensitivity of the Net OPEB Plan Liability to Changes in the Discount Rate***

The following table presents the Authority's proportionate share of the net OPEB Plan liability using the discount rate of 4.13% for fiscal year 2023 and 4.09% for fiscal year 2022, as well as what the Authority's proportionate share of the net OPEB Plan liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate:

<b>June 30, 2023</b>			<b>June 30, 2022</b>		
<b>1% Decrease (3.13%)</b>	<b>Current Discount Rate (4.13%)</b>	<b>1% Increase (5.13%)</b>	<b>1% Decrease (3.09%)</b>	<b>Current Discount Rate (4.09%)</b>	<b>1% Increase (5.09%)</b>
\$ 2,307,404	\$ 2,024,102	\$ 1,792,463	\$ 2,038,988	\$ 1,770,915	\$ 1,553,646

***Sensitivity of the Net OPEB Plan Liability to Changes in the Healthcare Cost Trend Rate***

The following table presents the Authority's proportionate share of net OPEB Plan liability using the healthcare cost trend rate of 7.0% (Pre-Medicare Plans) and 4.8% (Medicare Plans) for fiscal year 2023 and 6.5% (Pre-Medicare Plans) and 4.9% (Medicare Plans) for fiscal year 2022, as well as what the Authority's proportionate share of the net OPEB Plan liability would be if it were calculated using healthcare cost trend rates that are 1% lower or 1% higher than the current healthcare cost trend rates:

<b>June 30, 2023</b>			<b>June 30, 2022</b>		
<b>1% Decrease (6.0% / 3.8%)</b>	<b>Current Trend Rate (7.0% / 4.8%)</b>	<b>1% Increase (8.0% / 5.8%)</b>	<b>1% Decrease (5.5% / 3.9%)</b>	<b>Current Trend Rate (6.5% / 4.9%)</b>	<b>1% Increase (7.5% / 5.9%)</b>
\$ 1,714,277	\$ 2,024,102	\$ 2,420,800	\$ 1,481,536	\$ 1,770,915	\$ 2,144,664

***Deferred Outflows of Resources and Deferred Inflows of Resources Related to the OPEB Plan***

At June 30, 2023 and 2022, the Authority reported deferred outflows of resources and deferred inflows of resources related to the OPEB Plan from the following sources:

	<b>Fiscal Year 2023</b>		<b>Fiscal Year 2022</b>	
	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Difference between expected and actual experience	\$ 585,472	\$ 157,891	\$ 595,827	\$ 198,687
Changes of assumptions or other inputs	86,423	687,779	35,863	833,115
<b>Total</b>	<b>\$ 671,895</b>	<b>\$ 845,670</b>	<b>\$ 631,690</b>	<b>\$ 1,031,802</b>

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

Amounts reported as deferred outflows of resources and deferred inflows of resources related to the OPEB Plan at June 30, 2023 and 2022 will be recognized in OPEB expense as follows:

<b>Fiscal Year Ended June 30</b>	<b>Fiscal Year 2023</b>	<b>Fiscal Year 2022</b>
2023	\$ -	\$ (69,388)
2024	(46,998)	(69,388)
2025	(46,322)	(68,712)
2026	(18,248)	(40,638)
2027	(17,091)	(39,481)
2028	(30,474)	(52,864)
2029	(29,992)	(52,382)
2030	15,131	(7,259)
2031	219	-

**NOTE 13 - POLLUTION REMEDIATION OBLIGATIONS**

The System reports pollution remediation obligations (“PROs”) as required by the 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 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, 2023 and 2022, the System reported \$62.2 million and \$51.7 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 have been designated under federal law as Superfund sites to address alleged 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 the System’s facilities operated at these locations.

**NOTE 14 - SUBSEQUENT EVENTS**

The System evaluated its June 30, 2023 combining financial statements for subsequent events through October 12, 2023, the date the combining financial statements were issued and noted the following:

On August 10, 2023, the Direct Purchase Agreement between the Authority and RBC Capital Markets, LLC, for the Authority’s Water and Sewer System Second General Resolution Revenue Bonds, Adjustable Rate Fiscal 2008 Series BB Subseries BB-3 & BB-4 was extended to August 14, 2026. The extension and accompanying interest rate change was effective as of August 14, 2023.

**New York City Water and Sewer System**

**NOTES TO COMBINING FINANCIAL STATEMENTS - CONTINUED**

**June 30, 2023 and 2022**

On August 10, 2023, the Direct Purchase Agreement between the Authority and RBC Capital Markets, LLC, for the Authority's Water and Sewer System Second General Resolution Revenue Bonds, Adjustable Rate Fiscal 2016 Series AA Subseries AA-1 was extended to August 14, 2028. The extension and accompanying interest rate change was effective as of August 14, 2023.

On October 2, 2023, the Standby Bond Purchase Agreement between the Authority and Bank of America, N.A., under which liquidity support is provided for the Authority's Water and Sewer System Revenue Bonds, Adjustable Rate Fiscal 2008 Series BB, Subseries BB-2 & Subseries BB-5, which was scheduled to expire on October 20, 2023, was extended to October 20, 2026.

On October 2, 2023, the Standby Bond Purchase Agreement between the Authority and Bank of America, N.A., under which liquidity support is provided for the Authority's Water and Sewer System Revenue Bonds, Adjustable Rate Fiscal 2016 Series AA, Subseries AA-1, which was scheduled to expire on October 27, 2023, was extended to October 27, 2026.

On October 5, 2023 the Authority issued \$693 million of fixed rate Second Resolution bonds, Fiscal 2024 Series AA. Proceeds of the bonds were used to fund capital projects and refinance \$32.9 million Fiscal 2018 Series CC, Subseries CC-2 bonds, \$70.0 million Fiscal 2019 Series DD, Subseries DD-2 bonds, \$75.0 million Fiscal 2020 Series BB, Subseries BB-2 bonds, and \$50.0 million Fiscal 2003 Series F, Subseries F-1-B bonds. The Bonds have a final maturity of 2053.



**REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)**

**New York City Water and Sewer System**

**SCHEDULE OF CHANGES FOR TOTAL OPEB PLAN LIABILITY AND RELATED RATIOS**

**As of June 30\*, (in thousands):**

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
<b>Total OPEB liability</b>							
Service Cost	\$ 71	\$ 112	\$ 112	\$ 97	\$ 111	\$ 94	\$ 101
Interest	74	44	54	53	47	42	43
Differences between expected and actual experience	112	334	(114)	(43)	572	(106)	(96)
Changes of assumptions	67	(628)	(34)	33	(336)	35	(222)
Benefits payments	(71)	(19)	(19)	(21)	(23)	(20)	(15)
Cadillac tax repeal	-	-	-	(18)	-	-	-
<b>Net Changes in Total OPEB liability</b>	<b>253</b>	<b>(157)</b>	<b>(1)</b>	<b>102</b>	<b>371</b>	<b>45</b>	<b>(189)</b>
Total OPEB liability - beginning	1,771	1,928	1,929	1,828	1,457	1,412	1,601
<b>Total OPEB liability - ending</b>	<b>\$ 2,024</b>	<b>\$ 1,771</b>	<b>\$ 1,928</b>	<b>\$ 1,929</b>	<b>\$ 1,828</b>	<b>\$ 1,457</b>	<b>\$ 1,412</b>
Covered employee payroll	\$ 1,295	\$ 1,156	\$ 1,209	\$ 1,187	\$ 942	\$ 859	\$ 1,038
Total OPEB Plan liability as a percentage of covered payroll	<u>156.3%</u>	<u>153.2%</u>	<u>159.4%</u>	<u>162.4%</u>	<u>193.9%</u>	<u>169.6%</u>	<u>135.9%</u>

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

**Notes to the Schedule:**

*Changes of assumption:* Changes of assumption and other inputs reflect the effects of changes in the discount rate each period. The following are the discount rates used in each period:

<b>Year</b>	<b>Discount Rate</b>
2023	4.13%
2022	4.09
2021	2.18
2020	2.66
2019	2.79
2018	2.98
2017	3.13

The Authority funds OPEB benefits on a pay-as-you-go basis and contributions are not actuarially determined. No assets are accumulated in a trust that meet the criteria of GASB codification P22.101 to pay related benefits for the OPEB Plan. Therefore, the required supplementary information related to actuarially determined contributions for the 10 most current fiscal years is not applicable.

**New York City Water and Sewer System**

**SCHEDULE OF THE AUTHORITY'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY**

**Last 10 Fiscal Years\* (in thousands):**

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Authority's proportion of the net pension liability	% 0.005	0.005	0.005	0.002	0.002	0.003	0.004	0.005	0.005	0.005
Authority's proportionate share of the net pension liability	\$ 824	1,014	343	422	393	516	828	1,215	1,012	1,154
Authority's covered payroll	\$ 1,295	1,156	1,209	1,187	942	859	1,038	1,148	1,289	1,124
Authority's proportionate share of the net pension liability as a percentage of its covered employee payroll	% 63.6	87.7	28.4	35.6	41.7	60.1	79.8	105.8	78.5	102.7
Plan fiduciary net position as a percentage of the total pension liability	% 82.2	81.3	93.1	76.9	78.8	78.8	74.8	69.6	73.1	67.2

**SCHEDULE OF THE AUTHORITY'S PENSION CONTRIBUTIONS**

**Last 10 Fiscal Years (in thousands):**

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Actuarially determined contribution	\$ 160	214	201	75	78	111	136	170	161	141
Contribution in relation to the actuarially determined contribution	\$ (160)	(214)	(201)	(75)	(78)	(111)	(136)	(170)	(161)	(141)
Contribution deficiency (excess)	\$ -	-	-	-	-	-	-	-	-	-
Authority's covered payroll <sup>1</sup>	\$ 1,295	1,156	1,209	1,187	942	859	1,038	1,148	1,289	1,181
Contribution as a percentage of covered payroll	% 12.4	18.5	16.6	6.3	8.3	12.9	13.1	14.8	12.5	11.9

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