WATER AUTHORITY OF WESTERN NASSAU COUNTY FINANCIAL STATEMENTS FISCAL YEARS ENDED MAY 31, 2019 AND 2018 (WITH INDEPENDENT AUDITORS' REPORT THEREON)



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SECTION B: FINANCIAL SECTION





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INDEPENDENT AUDITORS' REPORT

Board of Directors Water Authority of Western Nassau County New Hyde Park, New York

We have audited the accompanying financial statements of the Water Authority of Western Nassau County, State of New York (the Water Authority), as of and for the years ended May 31, 2019 and 2018 and the related notes to the financial statements, which collectively comprise the Water Authority of Western Nassau County's basic financial statements as listed in the table of contents.

MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

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

AUDITOR'S RESPONSIBILITY

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

OPINIONS

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Water Authority of Western Nassau County, as of May 31, 2019 and May 31, 2018 and the respective changes in financial position and, cash flows thereof for the years then ended in conformity with U.S. generally accepted accounting principles.

EMPHASIS OF MATTER

As discussed in Note 1 to the financial statements, during the year ended May 31, 2019 the Water Authority implemented Governmental Accounting Standards Board ("GASB") Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. Our opinion is not modified with respect to this matter.

OTHER MATTERS

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 20, Schedule of Changes in the Total OPEB Liability and Related Ratios on page 65, Schedule of the Water Authority's Proportionate Share of the Net Pension Liability - New York State Employees' Retirement System on page 66, and Schedule of Contributions to the New York State Employees' Retirement System on page 67 be presented to supplement the basic financial statements. Such information, although not a part of the basic 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 financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic combining financial statements, and other knowledge we obtained during our audit of the basic combining financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

OTHER REPORTING REQUIRED BY GOVERNMENT AUDITING STANDARDS

In accordance with *Government Auditing Standards*, we have also issued our report dated August 30, 2019, on our consideration of the Water Authority of Western Nassau County's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Water Authority of Western Nassau County's internal control over financial reporting and compliance.

Astoria, New York
August 30, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS



The Water Authority of Western Nassau County (the "Water Authority") was established to provide potable water to portions of western Nassau County that encompass the Incorporated Villages of Bellerose, Floral Park, New Hyde Park, South Floral Park, Stewart Manor and portions of Garden City and Valley Stream. The service area also includes the unincorporated areas of Bellerose Terrace, Elmont, Floral Park, Floral Park Centre, New Hyde Park and portions of Franklin Square and North Valley Stream.

OVERVIEW OF THE FINANCIAL STATEMENTS

This financial report consists of four sections: (1) Management's Discussion and Analysis (this section); (2) the Financial Statements; (3) Notes to the Financial Statements that explain in more detail some of the information in the Financial Statements and (4) required supplementary information.

Management's Discussion and Analysis ("MD&A") serves as an introduction to the basic financial statements and provides supplementary information. The MD&A represents management's examination and analysis of the Water Authority's financial condition and performance. Summary financial statements data, key financial and operational indicators used in the Water Authority's strategic plan, operating plan, bond covenants and other management tools were used for this analysis. The information contained in this analysis should be used by the reader in conjunction with the information contained in the audited financial statements and the notes to those financial statements.

The financial statements report information about the Water Authority. The Water Authority applied full accrual accounting methods as used by similar business activities in the private sector. The statements offer short and long-term financial information. However, rate-regulated accounting principles applicable to private sector utilities are not used by government utilities.

The financial statements include the Statement of Net Position; Statement of Revenues, Expenses and Changes in Net Position; Statement of Cash Flows, and the Notes to the Financial Statements.

The Statement of Net Position of the Water Authority reports all assets, deferred outflows of resources, liabilities, deferred inflow of resources, and net position. The Statement of Net Position represents the difference between all other elements in a statement of financial position in three components: net investment in capital assets; restricted (distinguishing between major categories or restrictions) and unrestricted. The Statement of Net Position provides information about the nature and amount of investment in resources (assets) and obligations to the Water Authority's creditors (liabilities) at year-end. It also provides the basis for computing rate of return, evaluating the capital structure, and assessing the liquidity and financial flexibility of the Water Authority. Over time, increases or decreases in net position serve as a useful indicator of whether the financial position of the Water Authority is improving or deteriorating.

The Statement of Revenues, Expenses and Changes in Net Position presents the results of the activities of the Water Authority and information as to how the net position changed during the year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows. This statement also provides information about whether the Water Authority has successfully recovered its costs through its user fees and other charges, its profitability and credit worthiness.

The Statement of Cash Flows presents the changes in cash and cash equivalents resulting from operating, investing, and capital financing and non-capital financing activities. The statements present cash receipts and cash disbursements information, without consideration of the earning events, when an obligation arises or depreciation of capital assets.

The notes to the financial statements provide required disclosures and other information that are essential to a full understanding of material data provided in the statements. The notes present information about the Water Authority's accounting policies, significant account balances and activities, material risks, obligations, commitments, contingencies and subsequent events, if any.

This section presents management's analysis of the Water Authority's financial conditions and activities for the fiscal years ended May 31, 2019 and May 31, 2018. Please read this information in conjunction with the financial statements, notes to the financial statements and the supplementary required information which follow this section.

FINANCIAL HIGHLIGHTS

Management believes the Water Authority's financial condition is strong and improving. The Water Authority is well within its debt covenants and the more stringent financial policies and guidelines set by its Board. The following are financial highlights:

- Total assets as of May 31, 2019 were \$153.8 million, deferred outflows were \$1.6 million and exceeded total liabilities of \$126.8 million and deferred inflows of \$0.8 million by \$27.8 million (i.e. net position). Of the total net position, \$27.0 million was invested in capital assets, \$2.0 million in restricted net position and unrestricted net position had a deficit balance of \$1.2 million. The deficit in the unrestricted net position was the result of implementing Government Accounting Standards Board Statement 75, Accounting and financial reporting for postemployment benefits other than pensions, and recognizing \$2.6 million additional liability for other post-employment benefits.
- Total assets increased by \$4.0 million (2.6%) between May 31, 2018 and May 31, 2019. Net position increased by \$2.7 million (10.6%) over the same period last year and the economic and financial position of the Water Authority improved.
- Operating revenues were \$17.5 million, showing a decrease of \$0.5 million (2.5%), as compared to \$0.7 million (3.5%) decline in the previous year. The decreased revenues from residential water sales was \$0.6 million (5.2%) and increased commercial and fire protection revenues was \$.02 million (3.2%). The residential water sales were affected by the rate increases of 2.5% offset by 2.5% lower consumption.
- Total operating expenses increased by \$0.2 million (1.7%), from \$11.6 million to \$11.8 million, for the fiscal years ended May 31, 2018 and May 31, 2019. The rise in operating expenses was the net result of \$0.3 million (4.5%) increase in operations expenses and \$0.07 million (3.0%) decrease in maintenance expenses and \$0.04 million (1.6%) decrease in depreciation expenses. The total operating expenses had increased \$0.2 million (1.5%) in the previous year, principally due to higher operations expenses.
- Operating income for the fiscal years ended May 31, 2019 and 2018 were \$5.8 and \$6.4 million. The decrease in operating income of \$.07 million (10%), in the current year, follows the decrease \$.08 million (11.4%), in the previous year. The decrease in operating income is related to lower water sales.

• The total principal payment and premium amortization of the Water Authority's long-term bonded debt was \$3.0 million (2.7%). On May 31, 2019, the outstanding principal balance and unamortized premium of the Water Authority's bonds payable were \$103 million and \$8 million, respectively.

FINANCIAL ANALYSIS OF THE WATER AUTHORITY

One of the most important objectives of the financial analysis is to determine if the Water Authority as a whole is better or worse off as a result of the year's activities. The Statement of Net Position and the statements of revenues, expenses and changes in net position provide useful information in this regard. The amount of net position, the difference between total assets and deferred outflows and liabilities and deferred inflows, is a significant measure of the financial health or financial position. Over time, increases or decreases in the Water Authority's net position are one indicator of whether its financial health is improving or deteriorating. However, other non-financial factors such as changes in economic conditions, population growth, and zoning and new or changed government legislation should be considered in evaluating the financial conditions of the Water Authority.

The following comparative condensed financial statements and other selected information serve as the financial data and indicators for management's monitoring and planning.

NET POSITION

A summary of the Water Authority's balance sheets is presented in the following table:

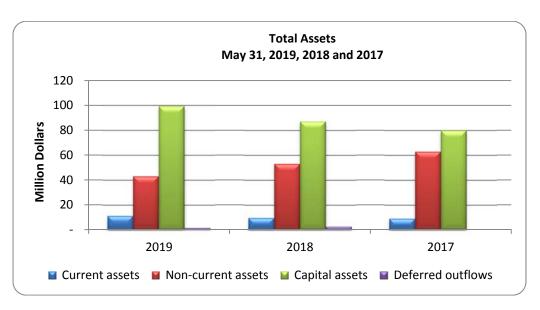
CONDENSED STATEMENT OF NET POSITION (BALANCE SHEETS)

			May 31,			2018 to 2019 Increase (Decrease)			2017 to Increase (D	
	2019		2018	2017		Amount	%		Amount	%
Current assets	\$ 11,332,066	\$	9,659,839	\$ 9,076,705	\$	1,672,227	17.3	\$	583,134	6.4
Noncurrent assets										
Other noncurrent assets	43,070,974		53,017,654	62,885,181		(9,946,680)	(18.8)		(9,867,527)	(15.7)
Capital assets	99,370,881		87,136,943	79,908,512		12,233,938	14.0		7,228,431	9.0
Total assets	153,773,921		149,814,436	151,870,398		3,959,485	2.6		(2,055,962)	(1.4)
Deferred outflows	1,623,579		1,495,054	2,667,820		128,525	8.6		(1,172,766)	(44.0)
Current liabilities	8,937,518		5,087,783	7,203,308		3,849,735	75.7		(2,115,525)	(29.4)
Noncurrent liabilities	9,411,946		9,454,909	7,462,205		(42,963)	(0.5)		1,992,704	26.7
Long-term debt-bonds, net	108,427,617		111,409,326	114,275,418		(2,981,709)	(2.7)		(2,866,092)	(2.5)
Total liabilities	126,777,081	,	125,952,018	128,940,931		825,063	0.7		(2,988,913)	(2.3)
Deferred inflows	807,192		208,189	265,600		599,003	287.7		(57,411)	(21.6)
Net position					•			,		
Invested in capital,	26,988,565		24,676,970	24,508,287		2,311,595	9.4		168,683	0.7
Restricted for rate stabilization	2,000,000		1,522,000	1,070,000		478,000	31.4		452,000	42.2
Unrestricted	(1,175,332)		(1,049,687)	(246,600)		(125,645)	12.0		(803,087)	(325.7)
Total Net Position	\$ 27,813,233	\$	25,149,283	\$ 25,331,687	\$	2,663,950	10.6	\$	(182,404)	(0.7)

The table above and Chart 1 show that total assets increased by \$3,959,485 (2.6%), from \$149,814,436, on May 31, 2018 to \$153,773,921, on May 31, 2019. During the same period, total liabilities increased by \$825,063 (0.7%) from \$125,952,018 to \$126,777,081. The total assets had decreased by \$2,055,962 (1.4%). and the total liabilities decreased by \$2,988,913 (2.3%), in the previous year. The increases in assets were primarily from expenditures pertaining to capital assets. The capital assets increased by \$12,233,938 (14%) in the current years and \$7,228,431 (9%) in the previous year. The other non-current

assets, which includes the restricted cash and cash equivalents and investment of bond proceeds, decreased by \$9,946,680 (18.8%) and \$9,867,527 (15.7%), in the current and previous year, respectively. The decreases in other noncurrent assets were related to the expenditure of restricted funds for construction and purchase of capital assets.

CHART 1



Current assets increased by \$1,672,227 (17.3%), from \$9,659,839 in previous year to \$11,332,066, in the current year, primarily as a result of increases of \$1,479,261 (42.1%) in unrestricted cash and \$478,000 (31.4%) in rate stabilization fund. Current assets had increased by \$583,134 (6.4%) during the previous year, primarily as a result of increased unbilled receivables.

During the current year, the current liabilities increased by \$3,849,735 (75.5%) from \$5,087,783, on May 31, 2018, to \$8,937,518, on May 31, 2019. The principal reason for increase in current liabilities was \$3,744,191 (240.8%) increase in accounts payable which includes construction contracts and other payables. In the previous year, the decrease of \$2,115,525 (29.4%) in current liabilities was primarily the result of a decrease of \$2,200,635 (58.6%) in accounts payable.

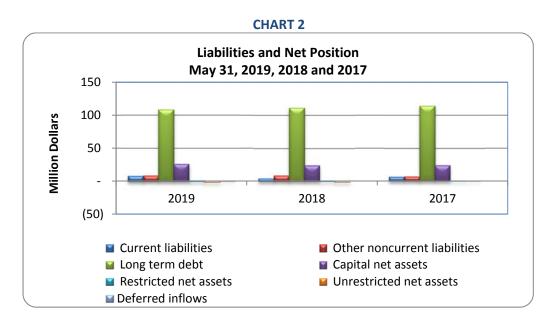
The long-term debt including the current portion and premium decreased by \$2,866,709 (2.5%) from \$113,899,326, on May 31, 2018, to \$111,032,617, on May 31, 2019. The decrease was because of the principal payment of \$2,490,000 and amortization of \$376,709 in premium (Chart 2).

The long-term debt including the current portion and premium decreased by \$2,756,092 (2.4%) from \$116,655,418, in the year ended May 31, 2017, to \$113,899,326 in the year ended May 31, 2018. The decrease was because of the principal payment of \$2,380,000 and amortization of \$376,092 in premium (Chart 2).

The total principal payments made during the fiscal years ended May 31, 2019 and 2018 were \$2,490,000 and \$2,380,000 respectively.

During the year, the net position of the Water Authority had increased by \$2,663,950 (10.6%). The changes in net position reflected the excess of operating incomes of \$5,759,916 over the net non-operating expenses of \$3,095,964.

The net position of the Water Authority had increased by \$2,397,433 (9.5%), in the previous year. The changes in net position reflected the excess of operating incomes of \$6,411,407 over the net non-operating expenses of \$4,013,974. The implementation of GASB statement 75, resulted in recognition of \$2,579,837 additional other post-employment (OPEB) liabilities and decrease in net position, as of May 31, 2018. This resulted in a decrease in net position of \$182,404 compared to May 31, 2017.



During the year, the unrestricted net position decreased by \$125,643 (12.0%), as compared to a decrease of \$803,087 (325.7%), in previous year, when unrestricted net position was restated as a result of implementing GASB statement 75.

Because of the transfers from unrestricted funds, the net position restricted for rate stabilization increased by \$478,000 (31.4%) and \$452,000 (42.2), during the years ended May 31, 2019 and 2018, respectively. The increases comply with the Bond covenants regarding maintaining Rate Stabilization restricted cash and cash equivalents.

As a result of expending unrestricted funds for capital related debt, the net position invested in capital increased by \$2,311,595 (9.4%) and \$168,683 (0.7%), during the fiscal years ended May 31, 2019 and 2018, respectively.

OPERATING RESULTS

As of May 31, 2019, the Water Authority provided water to 26,402 residential customers, 1,430 commercial customers, 208 private fire customers and 2,432 municipal fire hydrants. The corresponding figures for May 31, 2018 were 26,387 residential customers, 1,372 commercial customers, 206 private fire customers and 2,432 municipal fire hydrants.

The Water Authority's condensed statements of revenues, expenses and changes in net position are as follows:

CONDENSED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

				May 31,				2018 to Increase (D			2017 to Increase (Dec	
		2019		2018		2017		Amount	%		Amount	%
Water sales:												
Residential	\$	11,603,159	Ś	12,239,206	Ś	12,837,135	Ś	(636,047)	(5.2)	\$	(597,929)	(4.7)
Commercial,	•	, ,	Ċ	,,		, ,		(,- ,	(-)		(//	, ,
municipal and other		5,940,663		5,755,538		5,811,329		185,125	3.2%		(55,791)	(1.0)
Total operating												
revenues		17,543,822		17,994,744		18,648,464		(450,922)	(2.5)		(653,720)	(3.5)
Operating expenses												
Operations		7,219,824		6,911,418		6,721,012		308,406	4.5		190,406	2.8
Maintenance		2,346,725		2,419,097		2,559,011		(72,372)	(3.0)		(139,914)	(5.5)
Depreciation		2,217,359		2,252,822		2,129,673		(35,463)	(1.6)		123,149	5.8
Total operating												
expenses		11,783,908		11,583,337		11,409,696		200,571	1.7		173,641	1.5
Operating income		5,759,914		6,411,407		7,238,768		(651,493)	(10)		(827,361)	(11.4)
Non-operating revenue (expense)												
Interest income		1,096,111		154,611		330,035		941,500	608.9		(175,424)	(53.2)
Miscellaneous income		303,506		291,647		316,216		11,859	4.1		(24,569)	(7.8)
Interest on long-term debt		(4,471,045)		(4,435,696)		(4,545,208)		35,349	0.8		109,512	(2.4)
Other amortization, net		(24,536)		(24,536)		(24,536)			0.0			
Net non-operating expenses		(3,095,964)		(4,013,974)		(3,923,493)		918,010	(22.9)		(90,481)	2.3
Change in total net Position GASB Statement 75 implementation		2,663,950		2,397,433		3,315,275		266,517	11.1		(917,842)	(27.7)
Net position, beginning	į	25,149,283		(2,579,837) 25,331,687	ı	22,016,412		(182,404)	(0.7)	ı	3,315,275	15.1
Net position, ending	\$	27,813,233	\$	25,149,283	\$	25,331,687	\$	2,663,950	10.6	\$	(182,404)	(0.7)

OPERATING REVENUES AND EXPENSES

The Water Authority provides water treatment and distribution to an estimated population of 120,000, approximately equal to 10% of Nassau County's total population. The Water Authority's customer base is diverse with no significant customer concentration. It benefits economically from its proximity to New York City. Limited growth is expected in the residential sector but there are large planned renovations to the Belmont Park Complex which should have a substantial effect on revenues in the near future.

The Lloyd, Magothy and Upper Glacial aquifers provide the Water Authority with a high-quality water supply that requires minimal treatment. Storage facilities along with existing well fields provide ample pumping capacity (46 million gallons per day) in relation to actual demand. The water system is compliant with all applicable permits and regulatory standards.

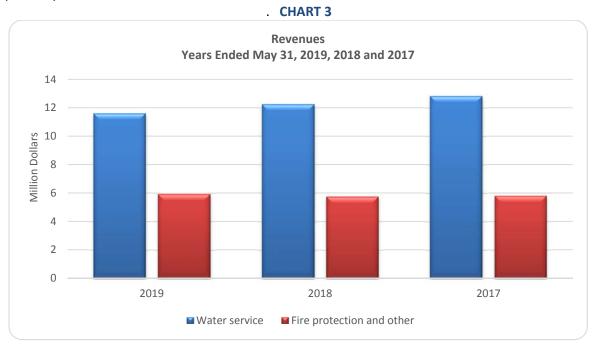
The Water Authority's total operating revenues decreased by \$450,922 (2.5%) from \$17,994,744, in the year ended May 31, 2018, to \$17,543,822, in the year ended May 31, 2019. The total revenues had decreased by \$653,720 (3.5%) in fiscal year ended May 31, 2018. The residential water sales revenue decreased by \$636,047 (5.2%) and \$597,929 (4.7%), in the current and previous year, respectively. The lower consumption levels were the reason for decline in revenues, despite a 2.5% rate increases in these years. During the year, the commercial and fire protection water sales revenues had an increase of \$185,125 (3.2%) as compared to a decrease of \$55,791 (1.0%), in the previous year (Chart 3).

At its May 20, 2019 public rate meetings, the Board of Directors of the Water Authority approved a 2.5% across the Board increase in water rates to all service classes. The quarterly bill for the minimum use customer increased from approximately \$46.63 to \$48.42. The average annual residential charges (based on approximately average usage of 105,300 gallons per year) increased from \$473 to \$486. The average annual commercial charges (based on approximately average usage of 489,700 gallons per year) increased from \$2,123 to \$2,204.

The 2.5% increase in rates was determined to be the amount necessary to meet the Water Authority's operations and financing requirements.

In the year ended May 31, 2019, the total amount of pumpage was down by 105 million gallons (2.6%) and average gallons for residential and commercial customers had decreased by 2.5% and 2.1%, respectively

In the year ended May 31, 2018, the total amount of pumpage was down by 206 million gallons (4.89%) and average gallons for residential and commercial customers had decreased by 5.69% and 5.61%, respectively.



The increase in total operating expenses during the current year was \$200,571 (1.7%) (Chart 4). The current year increase was the net result of \$308,406 (4.5%) increase in operations expense and decreases of \$72,372 (3.0%) and \$35,463 (1.6%) in maintenance expense, and depreciation expense, respectively. The rise in operations expense was due to the increase in payroll and employee benefits

The increase in total operating expenses during the previous year was \$173,641 (1.5%). The increase was the net result of \$139,914 (5.5%) decrease in maintenance expense, \$190,406 (2.8%) additional operations expenses and \$123,149 (5.8%) more depreciation expense. The rise in maintenance expense and operations expense was due to the increase in payroll and employee benefits.

CHART 4



Changes in operating revenues and expenses, caused the operating incomes to decrease by \$651,491 (10.0%) and \$827,361 (11.4%), during the years ended May 31, 2019 and 2018, respectively.

NON-OPERATING REVENUES AND EXPENSES

Non-operating revenue includes interest earnings on cash equivalents and investment, realized and unrealized gain or losses on investments and miscellaneous income. Net interest incomes and gain or losses were \$1,096,111 and \$154,611, in the years ended May 31, 2019 and 2018, respectively. The interest income and gain or losses on investment are mainly earned on the unexpended proceeds of Series 2015 Bonds, held for construction and as reserves.

The miscellaneous incomes were \$303,506 and \$291,647, in the year ended May 31, 2019 and 2018, respectively. This miscellaneous income involves the rental income realized from the lease of space atop water towers to cellular phone companies.

For the fiscal years ended May 31, 2019 and 2018, the interest expenses were \$4,471,045 and \$4,435,696, respectively. For the year ended May 31, 2019, the Water Authority has opted for the early adoption and application of the GASB statement 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. All interest incurred during the year ended May 31, 2019 was expensed. The interest expense for the previous year is presented net of \$144,200 interest capitalized during the construction of capital assets.

CAPITAL ASSETS

The Water Authority owns and maintains a broad range of infrastructure items including water plants, water lines, well-stations, administrative facilities, vehicles and equipment necessary for the treatment and distribution of potable water to its customers. The Water Authority has \$99,370,881 in net capital

assets, showing an increase of \$12,233,938 (14.0%) from the prior year. The increase in net capital assets in prior year was \$7,228,431 (9.0%).

Capital assets consisted of the following for the years ended May 31:

CAPITAL ASSETS MAY 31.

		/				
Capital Assets		2019		2018		2017
Land	\$	599,074	\$	599,074	\$	599,074
Construction in progress		26,708,463		14,186,868		7,151,780
Wells and standpipes		6,086,412		6,086,412		5,894,055
Pumping and purification		23,963,259		23,041,043		22,845,201
Distribution system		44,367,097		43,652,693		41,937,015
Building, vehicles and equipment		20,093,583	=	20,054,593	-	19,996,311
Total capital assets		121,817,888		107,620,683		98,423,436
Accumulated depreciation	_	(22,447,007)	-	(20,483,740)		(18,514,924)
Net capital assets	\$	99,370,881	\$	87,136,943	\$	79,908,512

For more detailed information on capital assets activity, please refer to the financial statements Note 4 – Property, Plant and Equipment.

MAJOR INCREASES IN CAPITAL ASSETS

During the years ended May 31, 2019 and 2018, the major capital assets improvement involved the wellhead treatment for VOC removal for well numbers 15A, 15B, 15C, 15D and 15E. The well head treatment project is progressing in the following three phases:

- 1. Phase 1 involved completing the work at station numbers 15A and 15C/E including the startup and testing of all equipment and acceptance by the NCDH. This phase has been completed and the stations are currently in operation.
- 2. Phase 2 has begun and comprehends the completion of the work designated at station 15B including the startup and testing of all equipment and acceptance by the NCDH. The work on this phase has been completed and the stations are in service,
- 3. Phase 3 work will commence in September 2019.

During the year ended May 31, 2019, the activities of the Water Authority, included the following:

- Iron Removal Plant (Station 25A) Project. Work on this project is 95% complete.
- Station 15 Project. When Station 25A project, is placed in service the Water Authority will move on to Phase 3 at Station 15 on Hempstead Turnpike in Elmont. The SCADA control screens for this site are being installed. Phase 2 at Station 15B is complete and in service.
- Station 57 Rehabilitation Project including 1,4 Dioxane Removal. This project involves the design
 of a new well pump for Well No. 57, a new well screen and pump for Well No. 57A and the
 replacement of the existing well building. The Water Authority filed the full engineering report

with the New York State Department of Health and Nassau County Department of Health for the pilot study regarding 1,4 - Dioxane. The Water Authority took delivery of Ultraviolet treatment system and has received the Station 57 UV-AOP Pilot System Test Report for the removal of 1,4 - Dioxane and PFA contaminants.

• The Storage Facility at Station 44. Presently the Water Authority stores large material, tools and various supplies within the garage at the new headquarters, and in the basement of the headquarters building. The garage at the headquarters is designed for the storage of vehicles and certain inventory items. The material and supplies to be stored at this location include, package pavement, road salt, various types and sizes of pipe, fittings, meters, electrical supplies, etc.

The Station 44 was determined to be an ideal and centrally located site for the storage of materials and supplies. Design of the building was completed in the year ended May 31, 2018. Construction started in the current year and 65% of the work has been completed. Presently, the following activities are being completed: backfilling and grading exterior of building and driveway; Installing bollards; finishing electrical work and follow up inspection; installing roof curb, fan and louver inside structure; and finalizing building inspection by Town of Hempstead and close out permit to receive certificate of occupancy. The project will be complete in the fiscal year ending May 31, 2020.

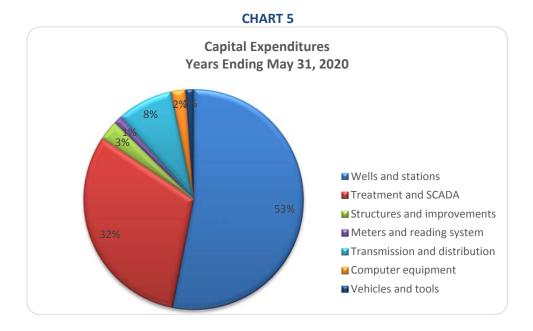
The new capital plan covers the anticipated projects for the fiscal years ending May 31, 2020 to 2024. The total plan amount is \$98,824,400 (Chart 5) which is financed by the balance of the 2015 Series A funds, a future bond issuance and excess of revenues over expenses. Also, a \$3,000,000 State of New York grant was received toward the cost of the 1,4-Dioxane treatment facility after the end of the fiscal year. The planned spending is aimed primarily at improvements to the treatment system, structure and improvements and repair and replacement of transmission and distribution lines. The planned capital expenditures for the year ending May 31, 2020 and five years ending May 31, 2024 are as follows:

Planned capital expenditures

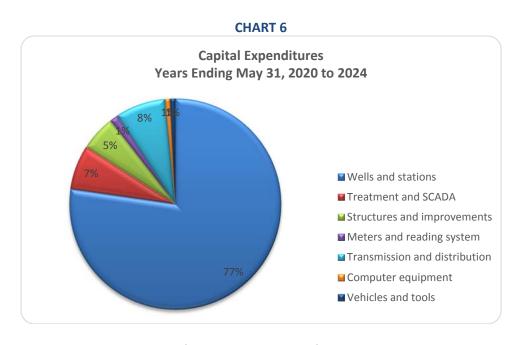
Year Ending May 31, 2020 and Total for Years ending May 31, 2020 to 2024

(Unaudited)

	Year I	Ending		Years E	nding	
_	May 3	1, 2020	_	May 31, 2020 to 2024		
	Amount	Percentage		Amount	Percentage	
Wells and stations	\$ 10,932,500	53.1%	\$	73,269,800	77.3%	
Treatment and SCADA	6,443,000	31.3%		6,443,000	6.8%	
Structures and improvements	600,000	2.9%		5,124,300	5.4%	
Meters and reading system	244,900	1.2%		1,271,500	1.3%	
Transmission and distribution	1,695,700	8.2%		7,247,100	7.6%	
Computer equipment	440,700	2.2%		731,700	0.8%	
Vehicles and tools	235,500	1.1%		737,000	0.8%	
Total projected capital expenditures	\$ 20,592,300	100.0%	\$	94,824,400	100.0%	



Of the total planned capital expenditures of \$20,592,250, the major planned capital expenditures for the year ending May 31, 2020 include \$10,932,500 (53.1%) for wells and stations, \$6,443,000 (31.3%) for treatment and SCADA and \$1,695,700 (8.2%) for transmission and distribution (Chart 5). The capital expenditures for the year ending May 31, 2020, represents 21.7% of total \$94,824,400 planned capital expenditures, over the next five years.



The planned five-year expenditures of \$94,824,400 includes \$73,269,800 (77.3%) for wells and stations, \$7,247,100 (7.6%) for transmission and distribution, \$6,443,000 (6.8%) for Treatment and SCADA and \$5,124,300 (5.4%) for structure and improvements. (Chart 6).

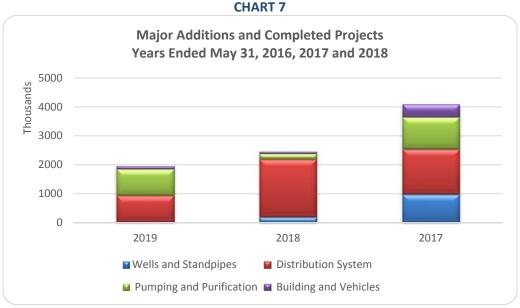
MAJOR ADDITIONS AND COMPLETED PROJECTS

The major additions of completed projects put into service to the capital assets in the fiscal years ended May 31, 2019, 2018 and 2017 are presented in the following table and Chart 7:

The expenditures for completed projects were \$1,946,092, \$2,455,390 and \$4,088,722, in the years ended May 31, 2019, 2018 and 2017, respectively. In the year ended May 31, 2019, the total amount \$904,693 (46.8%) was expended for electrical pumping equipment, \$360,527 (18.7%) for services and \$332,826 (17.2%) for meters and meter equipment. (Chart 7)

MAJOR ADDITIONS AND COMPLETED PROJECTS Years Ended, May 31,

	2019	2018	2017
Wells and Standpipes			
Wells and standpipes	\$ 13,820	\$ 192,356	\$ 975,383
Distribution System			
Mains	73,853	946,817	445,125
Services	360,527	324,042	308,497
Meters and meter equipment	332,816	545,947	563,482
Hydrants	149,612	175,040	238,264
Pumping and Purification			
Electric pumping equipment	904,693	111,808	715,810
Water treatment equipment	3,703	84,034	390,372
Building and Vehicles			
Building	-	747	6,030
Office equipment	12,904	13,953	7,774
Vehicles	31,642	33,438	434,501
Miscellaneous equipment	62,522	27,208	3,484
Total additions	\$ 1,946,092	\$ 2,455,390	\$ 4,088,722



LONG-TERM DEBT

REVENUE SERIES 2005 BONDS

On May 28, 1996, the Water Authority issued \$34,460,000 Water System Revenue Bonds, Series 1996 to finance the cost of acquisition and certain construction expenditures of the water system, including initial working capital of the Water Authority and the costs of the utility assets and additional improvements to the water system.

The \$33,875,000 Water System Revenue Bonds, Series 2005 (the "Series 2005 Bonds") were applied to advance refund Water Authority's outstanding Water System Revenue Bonds, Series 1996 and to finance the cost of acquisition and construction of improvements to the Water System, fund a deposit to the Reserve Account and pay certain costs of issuance relating to the Series 2005 Bonds.

REVENUE SERIES 2010 BONDS

The Water Revenue Bonds, Series 2010 were dated April 1, 2010 and issued on April 15, 2010, with accrued interest. The Series 2010 Revenue Bonds include the Water System Revenue Bonds, Series 2010A, with aggregate principal balance of \$6,925,000, and, Series 2010B, federally taxable, Build America Bonds, with aggregate principal balance of \$33,965,000.

The Series 2010A Bonds were issued to finance costs of acquisition, improvements and additions to the water system, to fund a deposit to the Reserve Account, and to pay certain costs of issuance relating to the Series 2010A Bonds. The Series 2010B Bonds were issued to finance the cost of acquisition, improvements and additions to the water system, including the construction of the Water Authority's headquarters, to fund a deposit to the Reserve Account, and to pay certain costs of issuance relating to the Series 2010B Bonds.

Moody's and Fitch Ratings affirmed the "A1" and 'AA-' rating of the Water Authority's Series 2015 Bonds.

All proceeds of Series 2010 A bonds were expended for construction of capital assets, as of May 31, 2017.

REVENUE SERIES 2015 BONDS

During the year ended May 31, 2015, the Water Authority completed new financing to fund future construction plans and to refund the 2005 Series A and B Bonds. Water System Series 2015A Revenue (Construction) Bonds and Water System Series 2015B Revenue (Refunding) Bonds were issued on April 22, 2015. The 2015A Bonds consist of \$21,660,000 (4.563 % average interest) Serial Bonds, \$17,640,000 (5% interest) Term Bonds due April 1, 2040, \$10,000,000 (5 % interest) Term Bonds due April 1, 2045 and \$4,900,000 (4% interest) Term Bonds due April 1, 2045. The 2015B Bonds consist of \$19,400,000 (4.506% average interest) Serial Bonds. A portion of the proceeds of the Bonds, along with funds transferred from amounts on deposit in the debt service funds, debt service reserve funds were deposited as cash and held in an irrevocable trust (the "Escrow Fund"), and were used solely to refund the \$23,885,000 outstanding balance of the Series 2005 Bonds.

The net present value of the economic gain from refunding the 2005 Series A and B Bonds was \$4,023,167 (16.84%) of refunded Bonds and deferred inflows from refunding gain was \$1,028,663.

CASH AND INVESTMENTS

The total amounts of unrestricted and restricted cash, cash equivalents and investment in the US Treasury Securities were \$49,623,711, \$57,630,669 and \$66,815,093, on May 31, 2019, 2018 and 2017, respectively. The reductions of \$8,006,958 (13.9%) and \$9,184,424 (13.9%) in cash, cash equivalents and investment, in the current and previous year, respectively, were mainly the result of expenditures pertaining to capital assets.

On May 31, 2019, the amount of restricted cash and cash equivalents held in the Construction Fund was \$13,479,553, in view of the planned capital expenditures of \$20,592,300 for the year ending May 31, 2020. The amount of cash, cash equivalents in Bond reserve Funds was \$3,475,608, as required by the bond covenants.

On May 31, 2019, of the total cash and cash equivalents of \$24,371,113 the amount of \$19,379,551 (79.5%) was restricted and the amount of \$4,991,562 (20.5%) was unrestricted. On May 31, 2018, of the total cash and cash equivalents of \$25,931,472 the amount of \$22,419,171 (86.5%) was restricted and the amount of \$3,512,601 (13.3%) was unrestricted. In the years ended May 31, 2019 and 2018, cash equivalents were invested in money market accounts and Dreyfus Government Securities Fund. Dreyfus money market funds invest only in the securities of the US government or US government agencies and enterprises.

The Water Authority's investment strategy is designed to eliminate the default risk and to maximize interest income by matching the maturities of the investments with the cash requirements of construction activities. The strategy minimizes the risk of having to liquidate the investment to pay construction under unfavorable market interest conditions. All of the Water Authority's investments are in the US Treasury Notes and Bonds with maturities of less than three years. All deposits were with a major national bank and were insured by FDIC or collateralized over 102% by the securities held by the Bank of New York Mellon under a tri-party collateral agreement.

Debt Service Coverage:

The Water Authority had \$9,904,059 net cash provided by operations, \$19,007,128 net cash used for capital and related financing expenditures, and \$9,450,866 cash provided by investing during the year ended May 31, 2019. The Water Authority's debt coverage ratio was as follows:

Cash Available and Debt Service Requirement	Amount
Operating income	\$ 5,759,916
Add: Depreciation and amortization	2,217,359
Noncash operation and maintenance expenses	487,500
Interest and other income	1,399,617
Total cash available for coverage	 9,864,392
Debt service requirements:	
Interest payments	4,803,011
Principal payments	 2,490,000
Total debt service requirements	\$ 7,293,011
Coverage Ratio	 1.35
Coverage requirement as per Water System Revenue Bonds, Series 2010 and 2005	1.20

For more detailed information on long-term debt activity, please refer to the financial statements Note 5 – Revenue Bonds Payable.

ECONOMIC FACTORS AND NEXT YEAR'S PLAN AND RATES

The Water Authority's Board of Directors and Management considered many factors when setting the fiscal year ended May 31, 2019 operating plan, user fees and charges. Population Changes, unemployment rates in Nassau County and changes in the consumer price index for the New York – Northern New Jersey – Long Island area are among these factors.

Changes in Employment

The unemployment rate in Nassau County has continued to be lower than the State of New York averages. The average unemployment rate in the County of Nassau was 3.1%, in May 2019 as compared to 3.3% in May 2018. The unemployment rate for the State of New York was 3.8% and 3.7%, in May 2019 and 2018, respectively.

Population changes

The Water Authority's service area population is approximately 120,000. The Water Authority presently has over 28,000 accounts in western Nassau County, of which about 94% are residential. Commercial and fire protection constitute most of the remainder. The Water Authority's customer base has mirrored Nassau County's population. According to the US Census Bureau estimates, in July 1, 2018 Nassau County's population was 1,358,343 and had increased by 1.4% from 1,339,532 in 2010. The population breakdown by towns within Nassau County for 2010 and 2000 is as follows:

NASSAU COUNTY	2010 (a)	2000 (b)
Town of North Hempstead	221,315	220,491
Town of Hempstead	759,185	756,360
City of Long Beach	35,615	35,482
Town of Oyster Bay	296,680	295,576
City of Glen Cove	26,737	26,637
TOTAL NASSAU COUNTY	1,339,532	1,334,546

a. Source: 2010 United States Censusb. Source: 2000 United States Census

Changes in Prices

In July 31, 2019 press release, Federal Reserve Bank indicated that the labor market remains strong and that economic activity has been rising at a moderate rate. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although growth of household spending has picked up from earlier in the year, growth of business fixed investment has been soft. On a 12-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent. Market-based measures of inflation compensation remain low; survey-based measures of longer-term inflation expectations are little changed. In light of the implications of global developments for the economic outlook as well as muted inflation pressures, the Federal Open Market Committee decided to lower the target range for the federal funds rate to 2 to 2-1/4 percent.

Over the year, prices in the New York-Newark-Jersey City area, as measured by the Consumer Price Index for All Urban Consumers (CPI-U), increased 1.5% as compared to 2.2% in the previous year. (Chart 8).

During the year, the food index increased by 1.3% as compared to 2.3% in the previous year. The rise in prices for food away from home and food at home were 2.2% and 0.7%, as compared to 3.5% and 1.4%, in previous year, respectively.

Over the year, the energy index declined by 3.6% as compared to 11.0% rise in the previous year. Household energy prices decreased 5.4%, pulled down by declines of 7.5% for electricity prices and 5.2% for natural gas prices. Area gasoline prices decreased 0.7%. In the previous year, gasoline prices were 20.4% higher than one year earlier, and prices for household energy were 4.9% higher. A 9.5% rise in natural gas prices had contributed the most to the increase in the household energy component.

In the current year, the index for all items less food and energy advanced 1.9%. A 2.2% increase in shelter prices included a 3.1% rise in residential rent and a 1.8% increase in owners' equivalent rent. Following shelter, the next largest contributor to the change in the index for all items less food and energy was medical care, which rose 4.3%, The twelve-month change for medical care was the largest in more than two years. Price increases were also recorded for recreation (3.1%) and for alcoholic beverages (3.0%). Prices for education and communication rose 2.3%, buoyed up by a 3.4% rise in tuition, other school fees, and childcare In the previous year, the index for all items less food and energy rose 1.5%. Shelter prices increased 2.4%, which included a 2.5% rise in owners' equivalent rent and a 2.0% increase in residential rent. Prices for other goods and services rose 2.4%. Additional categories with price increases included medical care (2.2%) and apparel (1.1%).

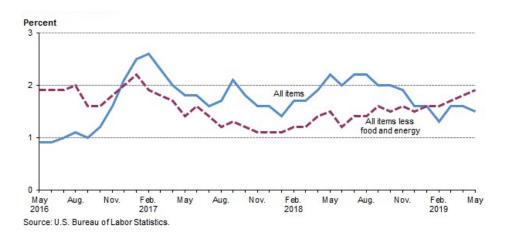
In May 2019, the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) was 272.726. The CPI-W rose 1.4% over the year. In May, 2018, CPI-W was 268.986, up 2.3% over the year.

CHART 8

Over-the Year Percent Change in CPI-U,

New York-Newark-Jersey City,

May 2016-May 2019



Forecast of Revenues and Expenses

The Water Authority has prepared and published an operating plan and forecast of revenues, expenses and changes in net position, for the five years ending May 31, 2024. For the year ending May 31, 2020, the total operating revenues, net of \$500,000 contribution to the rate stabilization fund, is estimated at \$18,114,600. Total operating expenses and operating income are estimated to be, \$12,613,440 and \$5,501,160, respectively. Interest, other charges and income are estimated to be \$3,652,200. The net position is planned to increase by \$1,848,960. The estimate is based on a 3.83% across the board rate increase to all customer classes.

Forecasted Revenues, Expenses and Changes in Net Position Year Ending May 31, 2020 (Unaudited)

	Amount
Operating Revenues	
Residential \$	12,915,900
Commercial	3,357,100
Fire hydrants	2,484,700
Private fire	195,200
Total water sales	18,982,900
Other Revenues	
Late payment charges	49,900
Other fees and charges	281,800
Total other revenues	331,700
Total revenues from customers	19,314,600
Rate Stabilization Fund Contribution	(500,000)
Total revenues, net of contribution	18,814,600
Operating Expenses	
Operation and maintenance	10,002,740
Depreciation	2,610,700
Total operating expenses	12,613,440
Total utility operating income	6,201,160
Interest Charges and Other	
Interest on long-term debt, net	4,689,200
Amortization of debt expense	(370,200)
Interest and other income	(666,800)
Total interest charges and other	3,652,200
Increase in net position \$	2,548,960
Projected debt service coverage	1.35x

In planning the future revenues, the key considerations have been the forecast of water consumption and adjustment of the water rates to meet the debt service requirements, expected rises in capital and operating costs.

CONTACTING THE WATER AUTHORITY'S FINANCIAL MANAGEMENT

This financial report is designed to provide our customers, creditors and public with a general overview of the Water Authority's finances and to demonstrate the Water Authority's accountability for the money it receives. If you have questions about this report or need additional information, contact the Water Authority's Superintendent at 1580 Union Turnpike, New Hyde Park, NY 11040.

BASIC FINANCIAL STATEMENTS



THE WATER AUTHORITY OF WESTERN NASSAU COUNTY STATEMENTS OF NET POSITION MAY 31,

		2019		2018
Assets				
Current assets:				
Cash and cash equivalents	\$	4,991,562	\$	3,512,301
Restricted cash- rate stabilization fund		2,000,000		1,522,000
Accounts receivable:				
Billed, net of \$25,000 allowance for doubtful accounts		693,310		746,158
Unbilled		3,107,000		3,386,000
Prepayments and other current assets		247,800		229,748
Materials and supplies, at weighted average cost	_	292,394	. ,	263,632
Total current assets		11,332,066		9,659,839
Noncurrent assets:				
Restricted cash and cash equivalents				
Bond construction fund		13,479,553		16,547,772
Bond reserve fund		3,475,608		1,977,505
Bond payment fund		1,198,055		1,176,692
Customer deposits		1,226,335		1,195,202
Restricted investments held by trustees				
Bond construction fund		17,910,164		24,676,259
Bond reserve fund		5,342,434		7,022,938
Capital assets				
Non-depreciable		27,307,537		14,785,942
Depreciable		72,063,344		72,351,001
Other assets				
Unamortized bond issue costs		5,683		10,984
Other assets	_	433,142		410,302
Total noncurrent assets		142,441,855		140,154,597
	_			
Total assets		153,773,921		149,814,436
Deferred outflows of resources				
Post-measurement date contributions		638,525		624,506
Changes in Retirement System assumptions		611,842		843,343
Changes in other post-employment benefits assumptions		25,605		-
Deferred outflows on refinancing	_	347,607	. ,	27,205
Total deferred outflow of resources		1,623,579		1,495,054

THE WATER AUTHORITY OF WESTERN NASSAU COUNTY STATEMENTS OF NET POSITION MAY 31,

	2019		2018
Liabilities and Net position			
Current liabilities:			
Accounts payable and accrued expenses	\$ 5,299,301	\$	1,555,110
Unearned revenue	115,853		105,411
Accrued interest payable	794,681		806,460
Customer advance on construction	82,683		90,802
Water revenue bond payable	2,605,000		2,490,000
Accrued vacation and sick leave	40,000		40,000
=			
Total current liabilities Noncurrent liabilities:	8,937,518		5,087,783
Water revenue bonds payable (net of premium)	108,427,617		111,409,326
Customer and other deposits	1,273,306		1,239,050
Due to employee retirement system	442,184		1,265,663
Other post-employment benefits	6,764,056		6,040,696
Accrued vacation and sick leave	932,400		909,500
Total noncurrent liabilities	117,839,563		120,864,235
Total liabilities	126,777,081		125,952,018
Deferred inflows	120,777,081		123,932,018
Changes in retirement system assumptions	767,795		208,189
Changes in other post-employment benefits assumptions	39,397		200,105
changes in other post employment benefits assumptions	33,337		
Total deferred inflows	807,192		208,189
Net position			
Net investment in capital assets	26,988,565		24,676,970
Restricted for rate stabilization	2,000,000		1,522,000
Unrestricted	(1,175,332)		(1,049,687)
		•	
Total net position	\$ 27,813,233	\$	25,149,283

THE WATER AUTHORITY OF WESTERN NASSAU COUNTY STATEMENTS OF REVENUES, EXPENSES AND CHANGE IN NET POSITION MAY 31,

	_	2019	2018
Operating revenues:			
Residential	\$	11,603,159	\$ 12,239,206
Commercial		3,013,413	2,941,243
Fire protection		2,577,479	2,517,923
Other water revenues	-	349,771	 296,372
Total operating revenues		17,543,822	17,994,744
Operating expenses:			
Operations		7,181,705	6,911,418
Maintenance		2,384,844	2,419,097
Depreciation	_	2,217,359	 2,252,822
Total operating expenses	-	11,783,908	 11,583,337
Operating income		5,759,914	6,411,407
Non-operating revenues (expenses):			
Interest income		1,096,111	154,611
Miscellaneous income, net		303,506	291,647
Interest on long-term debt, net		(4,471,045)	(4,435,696)
Other amortization, net	-	(24,536)	 (24,536)
Net non-operating expenses	-	(3,095,964)	 (4,013,974)
Change in net position		2,663,950	2,397,433
GASB Statement No. 75 implementation			(2,579,837)
Net position - beginning	-	25,149,283	 25,331,687
Total net position - ending	\$ <u>_</u>	27,813,233	\$ 25,149,283

THE WATER AUTHORITY OF WESTERN NASSAU COUNTY STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED MAY 31,

	_	2019		2018
Cash flows from operating activities:				
Receipts from customers	\$	17,875,672	\$	17,877,911
Rental property revenues	•	303,506		291,647
Payments to suppliers for goods or services		(3,933,778)		(4,550,346)
Payments for employee services	_	(4,341,341)	_	(4,321,577)
Net cash provided by operating activities		9,904,059		9,297,635
Cash flows from capital and related financing activities:				
Repayment of water revenue bonds		(2,490,000)		(2,380,000)
Acquisition of capital assets		(11,664,496)		(11,293,726)
Interest paid on water revenue bonds	-	(4,852,632)	_	(4,962,944)
Net cash used by Capital and related financing activities		(19,007,128)		(18,636,670)
Cash flows from non-capital financing activities:				
Cash flows from investing activities:				
Redemption of treasury bonds/notes		8,492,746		26,138,671
Purchase of treasury bonds/notes		-		(29,962,341)
Interest and dividends received	_	1,049,964	_	720,571
Net cash (used) provided by investing activities	_	9,542,710	_	(3,103,099)
Net(decrease) increase in cash and cash equivalents		439,461		(12,442,134)
Cash and equivalents, beginning of year	_	25,931,472	_	38,373,606
Cash and equivalents, end of year	\$ <u>_</u>	26,371,113	\$ <u></u>	25,931,472

THE WATER AUTHORITY OF WESTERN NASSAU COUNTY STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED MAY 31,

	-	2019	2018
Reconciliation of operating income to net cash provided by operating activities Operating income	\$	5,759,914 \$	6,411,407
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization		2,217,359	2,252,822
Rental Income		303,506	291,647
Changes in operating assets and liabilities: Accounts receivable		52,848	239,167
Accrued unbilled revenue		279,000	(356,000)
Prepaid items and other assets		(18,052)	178,172
Inventory of materials and supplies		(28,762)	(48,576)
Other assets		(47,376)	4,260
Deferred outflows		(130,125)	1,172,766
Accounts payable and accrued expenses		949,270	(220,011)
Unearned revenues		10,442	16,525
Net Pension liability Customer deposits		(823,479) 34,256	(975,146) 29,165
Other post-employment benefits		723,360	360,248
Compensated absences		22,900	(1,400)
Deferred inflows		598,998	(57,411)
Deterred lilliows	-	330,330	(37,411)
Net cash provided by operating activities	\$ <u></u>	9,904,059 \$	9,297,635

Non-cash transactions: The fully depreciated capital assets of \$254,092 were written off.

THE WATER AUTHORITY OF WESTERN NASSAU COUNTY NOTES TO THE FINANCIAL STATEMENTS FOR THE YEARS ENDED MAY 31, 2019 AND 2018

NOTE 1 - ORGANIZATION

The Water Authority of Western Nassau County ("the Water Authority") was established on July 25, 1990, pursuant to the "Water Authority of Western Nassau County Act," of the State of New York, as amended on July 31, 1992 and codified under Title 8-C of Article 5 of the Public Authorities Law. As a governmental agency constituting a public benefit corporation, the Water Authority was created for the purpose of acquiring, constructing, maintaining and operating a water supply and distribution system within the territorial boundaries of the Water Authority of Western Nassau County District ("the District").

On May 28, 1996, the Water Authority, by exercise of the power of eminent domain, acquired the water supply and distribution system situated in the District previously owned by Jamaica Water Supply Company. The District serves a population of approximately 120,000 within the Town of Hempstead and the Town of North Hempstead. The Town of Hempstead component includes the incorporated villages of Bellerose, Floral Park, New Hyde Park, South Floral Park, Stewart Manor and portions of Garden City and Valley Stream. The area within the Town of Hempstead also includes the unincorporated areas of Bellerose Terrace, Elmont and portions of Franklin Square and North Valley Stream. The area within the Town of North Hempstead includes the unincorporated areas of Floral Park, Floral Park Centre and New Hyde Park.

The Water Authority is governed by a Board of Directors consisting of nine members. The town board of the Town of Hempstead appoints two members and the town board of the Town of North Hempstead appoints one member to the Board. The village boards of the Villages of Bellerose, Floral Park, Garden City, New Hyde Park, South Floral Park and Stewart Manor each appoint a single member to the Board. Each member serves for a period of two years. The number of votes of each Board member is proportional to the number of water customers in the town or village that appoints them.

Under the Government Accounting Standards Board ("GASB") Statement No. 14, The Financial Reporting Entity, Statement No. 39, Determining Whether Certain Organizations Are Component Units-an Amendment of GASB Statement No. 14 and Statement No. 61, The Financial Reporting Entity: Omnibus the Water Authority is classified as a primary government agency with no component units. The classification is based on the following criteria: (1) it has a separately appointed governing body; (2) pursuant to its charter, the Water Authority is a legally separate and distinct entity from the State of New York, the County of Nassau and the Towns and Villages that appoint its Board of Directors and (3) neither the State of New York, nor any of its municipal entities, are financially accountable or liable for the indebtedness of the Water Authority. The Water Authority determines its operating plan, sets rates and issues bonded debt without approval by another government entity.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Measurement Focus, Basis of Accounting and Financial Statement Presentation

The financial statements of the Water Authority have been prepared in conformity with generally accepted accounting principles ("GAAP") as applied to governmental units. GASB is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The Water Authority applies all applicable pronouncements of GASB.

The activities of the Water Authority are accounted for similar to those often found in the private sector using the flow of economic resources measurement focus and the accrual basis of accounting. All assets, liabilities, net position, revenues and expenses are accounted for through a single enterprise fund with revenues recorded when earned and expenses recorded at the time liabilities are incurred. The flow of economic resources refers to the reporting of all the net position available to the Water Authority for the purposes of providing related water services. The accounting objectives of this measurement focus are the determination of operating income, changes in net position (or cost recovery), financial position and cash flows. All assets and liabilities (whether current or noncurrent) and associated activities are reported and equity is reported as net position.

Basis of accounting refers to when revenues, expenses, transfers and the related assets and liabilities are recognized and reported in the financial statements. Specifically, it relates to the timing of the measurements made regardless of the nature of the measurement.

The Water Authority uses the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recorded when incurred. Proprietary-type accounting also distinguishes operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing water services and producing potable water for the service area in connection with the Water Authority's principal ongoing operations. The principal operating revenues of the Water Authority are charges to customers to provide potable water service. Other ancillary fees and services related to providing water are also recognized as operating revenues. Operating expenses include the cost of service, administration and depreciation of capital assets. All revenues and expenses not meeting these definitions are reported as non-operating revenues and expenses.

The Water Authority has adopted the provisions of Government Accounting Standard Board (GASB) Statement No. 34, Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments and GASB statement No. 63, Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position. These statements established reporting standards for all state and local governments, which include Statement of Net Position, Statements of Revenues, Expenses and Changes in Net Position and Statement of Cash Flows and inclusion of Management's Discussion and Analysis.

The Statement of Net Position of the Water Authority reports all assets, deferred outflows of resources, liabilities, deferred inflow of resources, and net position. The Statement of Net Position represents the difference between all other elements in a statement of financial position in three components: net investment in capital assets; restricted (distinguishing between major categories or restrictions) and unrestricted. The Statement of Net Position provides information about the nature and amount of investment in resources (assets) and obligations to the Water Authority's creditors (liabilities) at year-end. It also provides the basis for computing rate of return, evaluating the capital structure of the Water Authority and assessing the liquidity and financial flexibility of the Water Authority. Over time, increases or decreases in net position serve as a useful indicator of whether the financial position of the Water Authority is improving or deteriorating.

The Statement of Net Position requires the classification of net position into three components as follows:

- 1. Net investment in capital assets— This component of net position consists of capital assets, net of accumulated depreciation and is reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction or improvement of these assets. Deferred outflows of resources and deferred inflow of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt also should be included in this component of net position. If there are significant unspent related debt proceeds or deferred inflows of resources at the end of the period, the portion of the debt or deferred inflow of resources attributable to unspent amount should not be included in the calculation of net investment in capital assets. Instead, that portion of the debt or deferred inflows of resources should be included in the same net position component (restricted or unrestricted) as the unspent amount.
- 2. Restricted The restricted component of net position consists of restricted assets reduced by liabilities and deferred inflow of resources related to those assets. Generally, a liability relates to the restricted assets if the asset results from a resource flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted asset reported. This component of net position consists of restrictions placed on net position as a result of external constraints imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation.
- 3. Unrestricted net position The unrestricted component of net position is the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

Cash and Cash Equivalents

For the purpose of the Statement of Cash Flows, the Water Authority considers all highly liquid investments with maturity of three months or less, when purchased, to be cash equivalents. The Statement of Cash Flows presented uses the direct method of reporting cash flows.

Under the Bonds Covenants, the Water Authority maintains its cash and cash equivalents in the Water Revenue Fund, General Fund and Operating Fund. The Water Authority pays into the Water Revenue Fund all of the revenues and all other moneys required to be paid into the fund other than the revenues and other amounts expressly required or permitted to be credited to, or deposited in, any other fund account. Cash in the General Fund may be used for any lawful purpose of the Water Authority. All reasonable and necessary operations and maintenance expenses are paid from the Operating Fund.

Restricted Cash, Cash Equivalents and Investments held by Trustee

Restricted cash, cash equivalents and investments are held in the following funds:

*Rate Stabilization Fund — This is a fund maintained by the Water Authority. Money deposited into the Rate Stabilization Fund is used in the following order:

1. To the extent provided in the current operating plan, money should be credited to or transferred to any other fund or account created under resolution.

- 2. Transferred to the bond fund trustee for deposit in the Bond Fund to ensure that there are no deficiencies in payments to the Bond Fund.
- 3. Transferred to the bond fund trustee for deposit in the Secondary Bond Fund to ensure that there are no deficiencies in payments to the Secondary Bond Fund.
- 4. Transferred to Unrestricted Operating.

The amount of Rate Stabilization Fund cash and cash equivalents were \$2,000,000 and \$1,522,000 as of May 31, 2019 and May 31, 2018, respectively.

Bond Construction Fund – In accordance with the bond resolution, money deposited in the Bond Construction Fund from the proceeds of the Water System Revenue Bonds, Series 2015 and Series 2010 are restricted to the cost of improvements or the replacement of the water system. The Bond Construction Fund is to be maintained in trust and held by the fund trustee. The total amounts in the Bond Construction Funds at May 31, 2019 and May 31, 2018 were \$31,389,717 and \$41,224,031, respectively. As of May 31, 2019, the balances of Construction Funds are from 2015 Bond Series.

Bond Reserve Funds — Under the Series 2015A and 2010 Resolutions, the Water Authority is required to deposit into the Reserve Accounts, the lesser of (i) 10% of the proceeds of the Series 2015A, Series 2010A and Series 2010B Bonds, (ii) the maximum principal and interest payments due on the Series 2015A, 2010A and Series 2010B Bonds in any Fiscal Year, (iii) 125% of the average of the annual installments of Debt Service with respect to all Series 2015A, Series 2010A and Series 2010B Bonds for the current and all future Fiscal Years.

The Bond Reserve Funds are to be maintained in trust and held by the fund trustee. Amounts in the Reserve Accounts are available to pay debt service when insufficient funds for that purpose are available in the Bond Fund.

As of May 31, 2019, and May 31, 2018, the total amounts of Bond Reserve Funds were \$8,818,042 and \$9,000,443, respectively. The Water Authority considers the expected changes in treasury yield curve in determining the optimal allocation of its debt reserve funds between cash and cash equivalents and investments.

Bond Payment Fund — The Water Authority's bond resolution authorizing the Water System Revenue Bonds, Series 2015, and Series 2010 bond issues has established the Bond Payment Fund. The Bond Fund is to be maintained in trust and held by the fund trustee. The Bond Fund is comprised of two separate fund accounts including the Bond Principal and Interest Fund. All money deposited in the Bond Fund is used solely for the purpose of paying the principal and interest on the bonds. On May 31, 2019 and May 31, 2018, the amounts in the Bond Fund cash and cash equivalents were \$1,198,055 and \$1,176,692, respectively.

Investment Securities — Investments are reported at fair value in the financial statements. Fair value is the amount in which an investment could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. If a quoted market price is available for an investment, the fair value is the total number of trading units of the instrument times the market price per unit. All investment income, including changes in fair value of investments is recognized as non-operating revenue in the operating statement.

Accrued Unbilled Revenues

Accrued unbilled revenues represent revenue earned in the current year but not yet billed to customers until future days, usually within three months, based on the estimated billings occurring in the three months of the succeeding year. Historical trend is used to estimate accrued unbilled revenues.

Accounts Receivable

Accounts receivable is net of an allowance for doubtful accounts of \$25,000 at May 31, 2019 and May 31, 2018. The allowance is estimated based on trends in historical collection rates and write-offs.

Prepaid Items

Certain prepayments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items in the Statement of Net Position.

Materials and Supplies

Materials and supplies inventory is valued at weighted average cost, which approximates market.

Capital Assets

Capital assets are defined by the Water Authority as assets with an initial individual cost of more than \$500 and an estimated useful life in excess of one year. Capital assets are carried at cost to the Water Authority. Improvements, renewals purchased or contributed property, replacements of retired units of property and significant repairs inclusive of materials, labor and certain overhead that extend the life of the asset are capitalized while minor repairs and maintenance costs are expensed as incurred.

Depreciation is provided on the straight-line basis using the following estimated useful lives for each asset type:

Capital Asset	<u>Useful Life Years</u>
Distribution system	35 - 105
Wells and standpipes	40 - 60
Pumping and purification	20 - 50
Other property and equipment	5 - 10

When assets are retired or otherwise disposed of, the related assets and accumulated depreciation is written off and any related gains or losses are recorded.

Capitalization of Interest during Construction

In previous fiscal years, the Water Authority capitalized the interest cost during the construction of capital assets according to Financial Accounting Standards Board's Accounting Standards Codification Paragraph 835-20-30-10 through 835-20-30-12.

The amount of interest cost capitalized for qualifying assets was that portion of the interest cost incurred during the assets' acquisition periods that theoretically could have been avoided if expenditures for the assets had not been made. In those fiscal years, the interest expenses are shown net of the capitalized portions of \$144,200 and \$133,700, in the financial statements for the years ended May 31, 2018 and May 31, 2017, respectively.

In June 2018, of the Governmental Accounting Standards Board issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period is not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019. Earlier application is encouraged. The Water Authority adopted this statement in the year ended May 31, 2019 and has expensed all interest cost incurred during the year. Also, the Water Authority will apply the requirements of this Statement prospectively.

Long-term Obligations

In the financial statements, long-term debt is reported as a liability in the Statement of Net Position. Long-term debt is reported at face value less any loss on defeasance and plus or minus applicable premium or discount, respectively.

Bond premiums and bond discounts are deferred and amortized over the life of the bonds in relation to principal payment over the life of the issue. The costs related to the insurance on long-term debt and the loss on the early retirement of refunded debt is amortized in relation to principal repayment over the life of the issue.

The amortizations of bond premiums were \$376,709 and \$376,092, in years ended May 31, 2019 and May 31, 2018. The amortization of Series 2015 deferred refunding loss was \$51,433 and the amortization of Series 2005 refunding gain was \$53,035, for both years ended May 31, 2019 and May 31, 2018.

Unearned Revenues

The Unearned revenues include advance payments by customers and charges for future repairs. The Water Authority recognizes the amounts charged as liabilities and credits them to revenue only when associated costs are incurred.

Other Postemployment Benefits

In addition to providing pension benefits, the Water Authority provides health insurance coverage for eligible retired employees. Substantially all the Water Authority's employees may become eligible for these benefits provided the employee has a minimum of ten years of full time employment with the Water Authority, has obtained 55 years of age and has terminated employment with the Water Authority within five years from the date on which entitled to a retirement allowance from the New York State and Local Employees Retirement System.

The Water Authority's Board of Directors adopted a resolution dated September 17, 2002, as amended November 9, 2009, that provides eligible enrollees with post-retirement medical insurance coverage, limited to the health insurance programs offered by the Water Authority to its then full-time employees, as modified from time to time by the Board of Directors of the Water Authority.

In previous fiscal years, the Water Authority recognized the cost of providing benefits by recording its share of insurance premiums as expenditures in the year paid. The liability for these other postemployment benefits was recorded as a long-term liability in the Statement of Net Position and was estimated based on the most recent actuarial valuation in accordance with the parameters of GASB Statement No. 45.

In June 2015, Government Accounting Standards Board (GASB) issued the Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. This Statement requires the liability of employers to employees for defined benefit OPEB (net OPEB liability) to be measured as the portion of the present value of projected benefit payments to be provided to current active and inactive employees that is attributed to those employees' past periods of service (total OPEB liability), less the amount of the OPEB plan's fiduciary net position. The Statement requires governments to present more extensive note disclosures and required supplementary information (RSI) about their OPEB liabilities. The new RSI includes a schedule showing the causes of increases and decreases in the OPEB liability and a schedule comparing a government's actual OPEB contributions to its contribution requirements. This Statement is effective for fiscal years beginning after June 15, 2017. The Water Authority adopted and implemented this statement in the fiscal year ended May 31, 2019.

The implementation of GASB Statement 75 increased the net other post-employment (OPEB) liability by \$2,579,837, from \$460,859 (under GASB Statement 45) to \$6,040,696 (under GASB Statement 75), as of May 31, 2018. The Statement of Net Position and Statement of Changes in Net Position have been restated for May 31, 2018 to reflect implementation as follows:

Net position—May 31, 2018, as previously stated	\$	27,729,120
GASB Statement No. 75 implementation		(2,579,837)
	•	

Net position—May 31, 2018, as restated \$ <u>25,149,283</u>

Accrued Vacation and Sick Leave

In the event of termination or upon retirement, employees are entitled to receive accumulated but unused vacation and sick leave at various rates subject to certain maximum limitations pursuant to policies adopted by the Board of Directors.

The liability for vested or accumulated vacation or sick leave (compensated absences) is recorded as current and noncurrent obligations on the Statement of Net Position. The current portion of this liability is estimated based on historical trends. In the Statements of Revenues, Expenses and Changes in Net Position only the compensated absence liability payable from available financial resources is incurred.

Net Pension Obligation and Deferred Outflows

The Water Authority provides retirement benefits for substantially all of its regular, full-time employees through contributions to the New York State and Local Employees' Retirement System. The system provides various plans and options, and all full-time employees are required to join the plan.

The Water Authority recognizes a net pension liability, which represents the Water Authority's proportional share of excess total pension liability over the pension plan assets, actuarially calculated, of New York Employees Retirement System, a cost-sharing multiple-employer plan, measured as of the pension plan's 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.

Revenue Recognition

Revenues from water sales are recognized at the time of service delivery based on actual or estimated water meter readings. Billings for water service are generally rendered on a quarterly basis except for one consumer, which is billed monthly due to the requirements of a legal settlement. The Water Authority's Board of Directors has the power to set rates and charges, which are sufficient to meet its obligations, independently and is not subject to the regulation of any department or commission, including the New York State Public Service Commission.

Operating and Non-Operating Revenues and Expenses

Operating revenues and expenses are related to operating transactions. The operating transactions are those other than capital and related financing activities, noncapital financing activities and investing activities. Operating revenues generally result from sales of water, grants for production and delivery of water, and reimbursement of operating expenses. Operating expenses include depreciation on all fixed assets. Non-operating revenue includes interest earnings on investment assets and miscellaneous income. Non-operating expenditures include interest expense on long-term debt.

Taxes

As a Public Benefit Corporation, the Water Authority is exempt from federal and state income taxes, as well as state and local property taxes.

Deferred Inflows of Resources/Deferred Outflows of Resources

Deferred outflows of resources are defined as a consumption of net assets by the government that is applicable to a future reporting period. Deferred inflows of resources are defined as an acquisition of net assets by the government that is applicable to a future reporting period. Deferred outflows of resources increase net position, similar to assets, and deferred inflows of resources decrease net position, similar to liabilities.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Operating and Capital Plans

The Water Authority adopts annual operating and capital plans. Plans are adopted on a basis consistent with generally accepted accounting principles. The current operating plan details the Water Authority's plans to earn and expend funds for charges incurred for operations, maintenance, certain interest and other charges for the fiscal year. The capital plan details the Water Authority's plan to receive and expend capital contribution fees and revenues for improving and expanding capital facilities.

All unexpended or encumbered appropriations in the operating plan remaining at the end of the fiscal year lapse. No appropriations for capital projects in the capital plan lapse until the purpose for which the appropriation was made, has been accomplished or changed.

Management submits a proposed plan to the Water Authority's Board of Directors prior to the commencement of the next fiscal year. A plan is adopted by resolution prior to June 1. During the year, the Board of Directors has to authorize the transfer of planned amounts between line items.

Fair Value Measurements

In accordance with Governmental Accounting Standards Board (GASB) Statement No. 72, Fair Value Measurement and Application. Fair Value hierarchy prioritizes the inputs to valuation techniques used to measure fair value. It gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

The three of the fair value hierarchy are described as follows:

Level 1: Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the plan has the ability to access.

Level 2: Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- If the asset or liability has a specified (contractual) term, the level 2 input must be observable for substantially the full term of the asset or liability.

Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement. The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques use should maximize the use of observable inputs and minimize the use of unobservable inputs.

The following is a description of the valuation methodologies used for investments measured at fair value:

Cash and Cash Equivalents - The fair value of cash and cash equivalents, consisting primarily of deposits and government money market funds, is classified as Level 1.

Treasury notes and bonds- Valued at the closing price reported on the active market on which the individual securities are listed, valued at Level 1.

The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Water Authority believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Recent Accounting Pronouncements

The following are discussions of the standards requiring implementation in the current year and standards that may impact the Water Authority in future years.

In June 2015, GASB issued Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions ("GASB 75"). GASB 75 establishes accounting and financial reporting standards for other post-employment benefits (OPEB) that are provided to employees of state and local governmental employers. This Statement replaces the requirements of Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. This Statement is effective for fiscal years beginning after June 15, 2017. Earlier application is encouraged. The Water Authority adopted implemented this statement, beginning fiscal year ended May 31, 2019.

In November 2016, GASB issued Statement No. 83, Certain Asset Retirement Obligations, ("GASB 83"). GASB 83 addresses accounting and financial reporting for certain asset retirement obligations. This statement establishes criteria for determining the timing and pattern of recognition of a liability and corresponding deferred outflow of resources for asset retirement obligations. The requirements of GASB 83 are effective for fiscal years beginning after June 15, 2018. The Water Authority has not completed the process of evaluating GASB 83. The Water Authority does not expect that GASB 83 will have an impact on its financial statements.

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*, ("GASB 84"). The objective of GASB 84 is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of GASB 84 are effective for fiscal years beginning after December 15, 2018. The Water Authority does not expect this statement to have an impact on its financial statements.

In March 2017, GASB issued Statement No. 85, *Omnibus 2017*, ("GASB 85"). The objective of GASB 85 is to address practice issues that have been identified during implementation and application of certain GASB statements. The requirements of GASB 85 are effective for fiscal years beginning after June 15, 2017. The adoption of GASB 85 did not have an impact on the Water Authority's financial statements.

In May 2017, GASB issued Statement No. 86, Certain Debt Extinguishment Issues, ("GASB 86"). The primary objective of GASB 86 is to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets are acquired with only existing resources—resources other than the proceeds of refunding debt. This statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished. The requirements of GASB 86 are effective for fiscal years beginning after June 15, 2017. The Water Authority is evaluating GASB 86, but does not expect it to have an impact on its financial statements.

In June 2017, GASB issued Statement No. 87, Leases, ("GASB 87"). This statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the principle that leases are financings of the right to use an underlying asset. Under this statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. The requirements of GASB 87 are effective for fiscal years beginning after December 15, 2019. The Water Authority is evaluating GASB 87. The Water Authority expects that GASB 87 will have an impact on its financial statements.

In March 2018, GASB issued Statement No 88, Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements. This Statement defines debt for purposes of disclosure in notes to financial statements as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established. This Statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses.

For notes to financial statements related to debt, this Statement also requires that existing and additional information be provided for direct borrowings and direct placements of debt separately from other debt. Effective Date and Transition the requirements of this Statement are effective for reporting periods beginning after June 15, 2018. Earlier application is encouraged. The adoption of this statement is not expected to have material effect on the Water Authority's financial statements.

In June 2018, GASB issued Statement No. 89, Accounting for Interest Cost Incurred before the End of a Construction Period. This statement establishes guidance designed to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period. It also simplifies accounting for interest cost incurred before the end of a construction period. For financial

statements prepared using the economic resources measurement focus, interest cost incurred before the end of a construction period should be recognized as an expense in the period in which the cost is incurred. Such interest cost should not be capitalized as part of the historical cost of a capital asset.

The requirements of this Statement are effective for reporting periods beginning after December 15, 2019. Earlier application is encouraged. Changes adopted to conform to the provisions of this Statement should be applied prospectively. For construction-in-progress, interest cost incurred after the beginning of the first reporting period to which this Statement is applied should not be capitalized. The Water Authority has adopted and will implement this guidance, beginning with the fiscal year ending May 31, 2019.

NOTE 3 - CASH, CASH EQUIVALENTS AND INVESTMENTS

Cash includes petty cash on hand, demand deposits and deposits in other kinds of accounts that have the general characteristics of demand deposit accounts, in that the Water Authority may deposit additional cash at any time and also effectively may withdraw cash at any time without prior notice or penalty. Cash equivalents include short-term, highly liquid investments that are both

- a. Readily convertible to known amounts of cash.
- b. So near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Generally, only investments with original maturities of three months or less meet this definition.

In accordance with the bond resolutions the Water Authority has deposited cash and made investment in various restricted accounts with the Bond Trustee. Also, the Water Authority holds customer deposits in a restricted bank account.

The restricted cash and investment are as follows:

Restricted for bond payment. This cash account is established to meet the debt service requirements on the outstanding water revenue bonds as they become due and payable.

Restricted for bond reserve. The restricted cash and investment bond reserve accounts are established to hold sufficient amount of money that remains outstanding through final bond maturity to ensure debt service payments.

Restricted for construction. The restricted cash and investment bond construction accounts are committed for capital expenditures.

Restricted for rate stabilization. The restricted cash rate stabilization account is established to buffer the impacts of occasional revenue shortfalls.

Restricted for customer deposits. This restricted cash account is established to keep deposits received from customers to secure the payment of their water bills.

Fair Value

On May 31, 2019 and 2018, the Water Authority's composition of cash, cash equivalents and investment, by level in the fair value hierarchy, were as follows:

May 31, 2019	_		Level 1		Level 2		Level 3
Unrestricted cash:			_				
Bank deposits	\$		4,990,862	\$	-	\$	-
Restricted cash:							
Customer deposits-Bank deposits			1,226,335		-		-
Rate stabilization Fund-Bank deposits			2,000,000		-		-
Bond payment:							
Bank deposits			840,315		-		-
Government money market funds			357,740		-		-
Bond reserve funds:							
Bank deposits			172,866		-		-
Government money market funds			3,302,742		-		-
Bond construction funds:							
Bank deposits			343,492		-		-
Government money market funds			13,136,061		-		-
Restricted investments:							
Bond construction fund-us treasury notes/bonds			17,910,164		-		-
Bond reserve funds-us treasury notes/bonds			5,342,434		-		-
	\$		49,623,011	\$	-	\$	-
May 31, 2018			Level 1		Level 2		Level 3
Unrestricted cash:		_		_		_	
Bank deposits		\$	3,511,601	\$	-	\$	-
Restricted cash:							
Customer deposits-Bank deposits			1,195,202		-		-
Rate stabilization-Bank deposits			1,522,000		-		-
Bond payment:							
Bank deposits			840,482		-		-
Government money market funds			336,210		-		-
Bond reserve funds:			330,210				
Bond reserve lunds:			330,210				
Bank deposits			90,918		-		-
			·		-		-
Bank deposits			90,918		- -		-
Bank deposits Government money market funds			90,918		- -		
Bank deposits Government money market funds Bond construction fund:			90,918 1,886,587		- - -		- - -
Bank deposits Government money market funds Bond construction fund: Bank deposits			90,918 1,886,587 769,556		- - - -		- - -
Bank deposits Government money market funds Bond construction fund: Bank deposits Government money market funds	ì		90,918 1,886,587 769,556		- - - -		- - -
Bank deposits Government money market funds Bond construction fund: Bank deposits Government money market funds Restricted investments:	5		90,918 1,886,587 769,556 15,778,216		- - - -	_	- - - -

All cash equivalents and investments classified and included in the Level 1 of the fair value hierarchy, as of May 31, 2019 and 2018, respectively, are valued using quoted prices in active markets.

Custodial Credit Risk – All cash deposits of the Water Authority are required to be insured by the Federal Deposit Insurance Corporation ("FDIC") or to be secured by obligations of, or guaranteed by, the United States of America or of the State of New York of a market value equal at all times to the amount on deposit and all banks and trust companies are authorized to give such security for such deposits.

The Water Authority's cash accounts are secured by the appropriate amount from the FDIC with all remaining amounts covered by fully pledged collateral securities, at over 102% of the amounts on deposit. All pledged collateral is classified in the highest category by being held by the Bank of New York Mellon under a tri-party collateral agreement in the Water Authority's name. All time and savings deposits and demand deposits of the Water Authority are held in insured depository institution within the State of New York and are separately insured up to \$250,000.

Investments

Investments Authorized by the State of New York and Bond Resolutions. Pursuant to the Bond Resolution, the Water Authority may only invest moneys on deposit in various funds established under the resolution in certain investment securities. In addition, and in accordance with the requirements of the State of New York Public Authorities Law, the Water Authority has adopted comprehensive investment guidelines which govern the investment of all moneys of the Water Authority. These guidelines provide that moneys on deposit with the Water Authority may only be invested in:

- 1. Direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America ("USA").
- 2. Bonds, debentures, notes, participation certificates or other evidences of indebtedness issued or guaranteed by any agency or instrumentality of the USA or any other corporation wholly owned by the USA.
- Public housing bonds or preliminary, temporary or project notes issued by public agencies or municipalities and fully secured as to the payment of both principal and interest by a pledge of annual contributions, under an annual contributions contract, or contracts with the USA or any federal agency.
- 4. Direct and general obligations of any State or political subdivision of State, as to the payment of the principal of and interest on which the full faith and credit of the issuer is pledged and at the time of their purchase, such obligations of any such state or political subdivision are rated in either of the two highest rating categories by two nationally recognized bond rating agencies.
- 5. Bank time deposits evidenced by certificates of deposit and bankers' acceptances issued by any bank or trust company, which is a member of the FDIC.
- 6. Obligations consisting of notes, bonds and debentures which are direct obligations of a solvent corporation existing under the laws of the USA or any state thereof, provided that such investments shall be rated in the two highest rating categories established by at least two nationally recognized bond rating agencies.
- 7. Certificates or other obligations of the USA or any state, political subdivision, agency or instrumentality of the USA or any state or political subdivision. It is required that such obligations shall be held in trust by a bank or trust company or a national banking association meeting the

requirements for a Bond Fund Trustee under the Bond Resolution. Certificates or other obligations of a state or political subdivision, the payments of all principal of, and interest on such certificates or such obligations, shall be fully insured or unconditionally guaranteed by, or otherwise unconditionally payable pursuant to a credit support arrangement provided by, one or more financial institutions or insurance companies or associations which shall be rated in the highest rating category by Moody's Investors Service, L.P. ("Moody's") and either Standard & Poor's Corporation ("S&P") or Fitch Investors Service, Inc. ("Fitch"), or, in the case of an insurer providing municipal bond insurance policies insuring the payment, when due, of the principal of and interest on municipal bonds, such insurance policy shall result in such municipal bonds being rated in the highest rating category by Moody's and either S&P or Fitch.

- 8. Written investment agreements, rated or the issuer of which is rated, in one of the two highest rating categories by at least two nationally recognized rating agencies, and if rated by Moody's, S&P or Fitch, such investment agreements or the long-term unsecured debt obligations of the insurer thereof must be rated in one of the two highest rating categories by the respective agency rating such investment agreements.
- 9. Money market funds registered under the Investment Company Act of 1940, as amended, the investment portfolios of which are comprised solely of investments in obligations described in items 1, 2 and 3 above, and which money market funds are rated in one of the two highest rating categories by the respective agency rating such money market funds.

Disclosures Relating to Credit Risk – There is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Any moneys of the Water Authority not required for immediate use or disbursement may, at the discretion of the Water Authority, be invested in those obligations specified pursuant to the provisions of Section 98(a) of the State Finance Law and the Bond Resolution with respect to the Water Authority's Water System Revenue Bonds, Series 2010 and 2005 Bonds.

In addition, there is the risk of loss attributed to the magnitude of the Water Authority's investment in a single issuer. Given the relative safety of those investment instruments that the Water Authority can purchase, the policies of the Water Authority do not place a limit on the amount that may be invested in any one issuer. As of May 31, 2019, and May 31, 2018, the Water Authority's investment, including the investment in cash equivalents was as follows.

	-	May 31, 2019			May 31, 2018					
		S&P-AAAm		S&P-AAAm						
		Moody's-	US	Moody's-						
	Level 1	Aaa-mf	Treasury	Level 1	Aaa-mf	US Treasury				
	Fair Value	NAIC-Class 1	Securities	Fair Value	NAIC-Class 1	Securities				
Dreyfus Government			_			_				
Securities Funds	\$16,796,543	\$16,796,543	\$ -	\$18,001,01	3 \$18,001,013	\$ -				
US Treasury Bonds	23,252,599	-	23,252,599	31,699,19	7 -	31,699,197				
Total	\$40,049,142	\$16,796,543	\$23,252,599	\$49,700,21	\$18,001,013	\$31,699,197				

At May 31, 2019 and 2018, all Water Authority funds were invested in credit risk free US Treasury Securities and money market funds with highest credit rating. The money market funds are managed by Dreyfus Corporation, a BNY Mellon Company. Dreyfus Government Securities Fund invests in securities issued or guaranteed as to the timely payment of principal and interest by the U.S. Government, or its

agencies or instrumentalities. The investment in the money market funds is not insured or guaranteed by the Federal Deposit Insurance Corporation (FDIC) or any other government agency.

Interest Rate Risk — When investing idle funds, there is the risk that changes in interest rates will adversely affect the fair value of that investment. The Water Authority currently has an investment policy that limits its exposure to fair value losses by establishing maturity timeframes that meet the cash flow requirements for ongoing operations, thereby avoiding the need to sell securities on the open market prior to maturity.

On May 31, 2019 and May 31, 2018, the maturity dates of the Water Authority's investment securities were as follows:

May 31, 2019	_	Fair Value	_	or Less	
Dreyfus Government Securities Funds	\$	16,796,543	\$	16,796,543	
May 31, 2018					
Dreyfus Government Securities Funds	\$	18,001,013	\$	18,001,013	

The Weighted Average Maturity of Dreyfus Government Securities has been very short, less than 60 days. The yields from money market funds may vary, although they have not in the past year, and is not fixed for a specific period. A sharp and unexpected rise in interest rates could cause the share price to drop below a dollar. However, the extremely short maturities of the securities held in the portfolio reduce the potential for price fluctuation. Also, the yields of US Treasury securities' and money market funds will fluctuate as the short-term securities in the Water Authority portfolio mature and the proceeds are reinvested in securities with different interest rates.

As of May 31, 2019 and 2018, the maturities of investment in the Water Authority's US treasury securities were as follows:

May 31, 2019 Maturity Date- on or before	Investment		Fair value	Percent	Average Term (Days)
5/31/2020	US Treasury Notes/ Bonds	\$	18,679,100	80.49%	592
5/31/2021	US Treasury Notes/ Bonds		2,745,100	11.83%	988
5/31/2022	US Treasury Notes/ Bonds		1,782,252	7.68%	1,096
		\$	23,206,452	100.00%	349
May 31, 2018					Average Term
Maturity Date- on or before	Investment		Fair value	Percent	(Days)
5/31/2019	US Treasury Notes/ Bonds	1	7,720,565	24.40%	238
5/31/2020	US Treasury Notes/ Bonds		19,468,969	61.50%	623
5/31/2021	US Treasury Notes/ Bonds		2,709,156	8.60%	988
5/31/2022	US Treasury Notes/ Bonds		1,733,477	5.50%	1,461
		\$	31,632,167	100.00%	588

The accrued interest on the investment accounts were \$46,147 and \$67,030 as of May 31, 2019 and May 31, 2018, respectively. The accrued interests are added to the market value of the investments in the statement of net position.

Custodial Risk of Investments

Custodial credit risk for investments exists when, in the event of the failure of the counterparty, a government will not be able to recover the value of its investments or collateral securities that are in possession of an outside party. The Bank of New York Mellon as the trustee and custodian holds the Water Authority's investments.

NOTE 4 – PROPERTY, PLANT AND EQUIPMENT

The changes in the cost of capital assets and accumulated depreciation during the years ended May 31, 2019 and May 31, 2018 are reflected in the following table:

Very Forded 84ay 24		2010				Reclassification		2010
Year Ended May 31,	-	2018	-	Increase		and Retirement		2019
Capital assets not subject to								
depreciation:								
Land and land rights	\$	599,074	\$	-	\$	-	\$	599,074
Construction in progress	_	14,186,868		14,451,297		(1,929,702)		26,708,463
Total capital assets not being								
depreciated		14,785,942		14,451,297		(1,929,702)		27,307,537
Capital assets being depreciated:								
Wells and standpipes		6,086,412		-		-		6,086,412
Pumping and purification		23,041,043		922,216		-		23,963,259
Distribution system		43,652,693		905,881		(191,477)		44,367,097
Building, vehicles and equipment		20,054,593		101,605		(62,615)		20,093,583
Total capital assets being depreciated		92,834,741		1,929,702		(254,092)	•	94,510,351
Less accumulated depreciation:								
Wells and standpipes		(1,477,160)		(126,322)		-		(1,603,482)
Pumping and purification		(6,841,756)		(472,835)		-		(7,314,591)
Distribution system		(7,456,957)		(894,318)		191,477		(8,159,798)
Building, vehicles and equipment		(4,707,867)		(723,884)		62,615		(5,369,136)
Total accumulated depreciation		(20,483,740)		(2,217,359)		254,092		(22,447,007)
Total net capital assets being			_				•	
depreciated	_	72,351,001	_	(287,657)	_			72,063,344
Total net capital assets	\$	87,136,943	\$	14,163,640	\$	(1,929,702)	\$	99,370,881

						Reclassification and	
Year Ended May 31,		2017		Increase		Retirement	2018
Capital assets not subject to							
depreciation:							
Land and land rights	\$	599,074	\$	-	\$	- \$	599,074
Construction in progress	_	7,151,780		9,490,478		(2,455,390)	14,186,868
Total capital assets not being							
depreciated		7,750,854		9,490,478		(2,455,390)	14,785,942
Capital assets being depreciated:							
Wells and standpipes		5,894,055		192,357		-	6,086,412
Pumping and purification		22,845,201		195,842		-	23,041,043
Distribution system		41,937,015		1,991,843		(276,165)	43,652,693
Building, vehicles and equipment	_	19,996,311		75,348		(17,066)	20,054,593
Total capital assets being depreciated		90,672,582		2,455,390		(293,231)	92,834,741
Less accumulated depreciation:							
Wells and standpipes		(1,354,339)		(122,821)		-	(1,477,160)
Pumping and purification		(6,286,996)		(554,760)		-	(6,841,756)
Distribution system		(6,855,644)		(868,252)		266,940	(7,456,957)
Building, vehicles and equipment	_	(4,017,945)	_	(706,988)		17,066	(4,707,867)
Total accumulated depreciation	· <u>-</u>	(18,514,924)		(2,252,822)	-	284,006	(20,483,740)
Total net capital assets being	_		_				
depreciated		72,157,658		202,568		(9,225)	72,351,001
Total net capital assets	\$	79,908,512	\$	9,693,046	\$	(2,464,615) \$	87,136,943

As of May 31, 2018, the amounts of capitalized interest included in construction in progress was \$144,200 and \$133,700. Under the new accounting policy, in accordance with GASB Statement 89, all interest incurred in the year ended May 31, 2019 was expensed. The depreciation expenses for the years ended May 31, 2019 and 2018 were \$2,217,359 and \$2,252,822, respectively.

NOTE 5 — REVENUE BONDS PAYABLE

The changes in Revenue Bonds Payable in the year ended May 31, 2019 and May 31, 2018 were as follows:

		May 31,2018		Decreased	_	Increased		May 31,2019
Water System Revenue Bonds payable Adjustment for deferred amounts:	\$	105,535,000	\$	(2,490,000)	\$	-	\$	103,045,000
Unamortized premium	-	8,364,326		(376,709)			,	7,987,617
Total Revenue Bonds	\$	113,899,326	\$	(2,866,709)	\$		\$	111,032,617
	-	May 31, 2017	. ,	Decreased		Increased	•	May 31,2018
Water System Revenue Bonds payable Adjustment for deferred amounts:	\$	107,915,000	\$	(2,380,000)	\$	-	\$	105,535,000
Unamortized premium	-	8,740,418	- ,	(376,092)			,	8,364,326
Total Revenue Bonds	\$	116,655,418	\$	(2,756,092)	\$		\$	113,899,326

SERIES 2005 REVENUE BONDS PAYABLE

On August 4, 2005, the Water Authority issued \$33,065,000 Water System Revenue Bonds, Series 2005 in part to provide sufficient funds to affect the advanced refunding of 1996 Series bonds, to finance the cost of acquisition and construction of improvements to the Water System and pay certain costs of issuance relating to the Series 2005 Bonds.

The interest on the refunding bonds ranged from 2.84% to 5.30% (average interest of 3.7%) and the bonds were issued at a premium of \$1,642,140. The \$28,155,000 remaining balance of the Water Authority's outstanding Series 1996A bonds had interest rates ranging from 5.65% to 6.43% (average interest of 5.6%). Simultaneously with the issuance of the Series 2005 Bonds, \$28,758,320, the amount of \$27,900,000 from the proceeds of the sale of the Series 2005 Bonds together with other available moneys, were used to purchase non-callable direct obligations of the USA. Those securities were deposited in an irrevocable trust with an escrow agent to provide for the May 1, 2006, redemption of the bonds, at a redemption price of 102% plus accrued interest. As a result, \$28,225,000 of Series 1996A bonds are considered defeased and the liability for those bonds were removed from the financial statements.

The refunding resulted in a difference between the reacquisition price and the net carrying amount of the refunded debt of \$2,230,412. The Water Authority completed the refunding to reduce its total debt service payments over the next 30 years to obtain an economic gain (difference between the present values of the old and new debt service payments) of \$2,314,315.

SERIES 2010 REVENUE BONDS PAYABLE

On April 15, 2010, the Water Authority issued its Series 2010 Revenue Bonds. The Series 2010 Revenue Bonds include the Water System Revenue Bonds, Series 2010A (the "Series 2010A Bonds"), with aggregate principal balance of \$6,925,000, and Water System Revenue Bonds, Series 2010B (the "Series 2010B Bonds"), federally taxable, Build America Bonds, with aggregate principal balance of \$33,965,000. The Bonds were issued pursuant to the water system revenue bonds General Resolution adopted by the Water Authority on May 13, 1996 and the supplemental Series 2010 Resolution adopted on January 25, 2010. The Series 2010 Bonds are the third and fourth Series of Bonds (as that term is defined herein) to be issued under the General Resolution.

The Series 2010A Bonds were issued to finance costs of acquisition, improvements and additions to the water system, to fund a deposit to the Reserve Account, and to pay certain costs of issuance relating to the Series 2010A Bonds. The Series 2010B Bonds were issued to finance the cost of acquisition, improvements and additions to the water system, including the construction of the Water Authority's headquarters, to fund a deposit to the Reserve Account, and to pay certain costs of issuance relating to the Series 2010B Bonds. The Series 2010 Bonds, which are issued as Senior Lien Bonds, are the third and fourth Series of Bonds issued under the General Resolution. The Series 2010 Bonds are payable as to both interest and principal solely from the net revenues on parity with other outstanding Bonds.

The Water Authority has elected to treat the Series 2010B Bonds as "Build America Bonds" for purposes of the American Recovery and Reinvestment Act of 2009 (the "Recovery Act") and to receive a cash subsidy from the US Treasury in connection therewith. Pursuant to the Recovery Act, the Water Authority is entitled to receive cash subsidy payments rebating a portion of the interest on the Build America Bonds

from the US Treasury equal to 35% of the interest payable on the Series 2010B Bonds. The Water Authority will use this subsidy exclusively to pay interest on the Series 2010B Bonds.

The Series 2010A Bonds are not subject to redemption prior to maturity. The Series 2010B Bonds are subject to Make-Whole and Extraordinary Redemption at the option of the Water Authority.

SERIES 2015 REVENUE BONDS PAYABLE

On April 22, 2015, the Water Authority issued the \$54,200,000 Water System Revenue Bonds Series 2015A and \$19,400,000 Water Revenue Refunding Series 2015B. The Series 2015A proceeds are used to finance the cost of construction of improvements to water system, to fund a portion of reserve account and to pay certain issuance costs. The proceeds of Series 2015B Bond together with Series 2005 Bond Debt Reserve Fund balances were applied to refund the \$23,885,000 outstanding balance of the Series 2005 Bonds, to pay \$666,789 of interest and fund a portion of reserve account and to pay certain issuance costs. The sources and uses of the Series 2015 Bonds are as follows:

	Uses:		
	Escrow Fund	\$	24,551,790
\$ 73,600,000	Construction Fund		55,822,774
9,410,647	Reserve account, Series 2015		4,780,500
	Deposit to Capitalized		
3,715,130	Interest Account Series 2015		1,128,088
	Costs of Issuance		442,625
\$ 86,725,777	Total Uses	\$	86,725,777
\$	9,410,647	\$ 73,600,000 Escrow Fund \$ 73,600,000 Construction Fund 9,410,647 Reserve account, Series 2015 Deposit to Capitalized 3,715,130 Interest Account Series 2015 Costs of Issuance	\$ 73,600,000 Construction Fund 9,410,647 Reserve account, Series 2015 Deposit to Capitalized 3,715,130 Interest Account Series 2015 Costs of Issuance

Series 2005A and 2005B Bonds are considered to be defeased and the liability for those bonds were removed from the financial statements.

The refunding resulted in a difference between the reacquisition price and the net carrying amount of the refunded debt of \$1,028,663. The Water Authority completed the refunding to reduce its total debt service payments over the next 30 years to obtain an economic gain (difference between the present values of the old and new debt service payments) of \$4,023,167. The economic gain represents 16.84% of the outstanding balance of the refunded bonds.

The Series 2015 Bonds are subject to redemption at the option of the Water Authority on or after April 1, 2025, in whole or in part, at a price of par, plus accrued interest.

The Series 2015A Bonds maturing on April 1, 2040 (\$17,640,000), April 1, 2045 (\$10,000,00 at 4% interest) and April 1, 2045 (\$4,900,000 at 5% interest) are subject to mandatory redemption, at a price equal 100% of the principal plus accrued interest, over five-year periods, commencing on 2036, 2041 and 2041, respectively.

The average life and duration of the Series 2015 Bonds are 17.84 and 12.19, respectively. The average annual debt service is \$4,530,667 and the maximum annual debt service is \$4,780,500. The yield of the component bonds ranges from 0.31% to 3.79%, depending on the term of the bonds.

Make-whole Redemption

The Series 2010B Bonds are subject to redemption, in whole or in part, prior to their stated maturities, on any date. The redemption price is equal to the greater of:

- (i) 100% of the principal amount of such Series 2010B Bonds to be redeemed, plus accrued and unpaid interest, or
- (ii) The sum of the present values of the remaining scheduled payments of principal and interest discounted to the date of redemption at the Treasury Rate plus 30 basis points. "Treasury Rate" is the yield to maturity of the Treasury Issue, with equivalent maturity.

Extraordinary Redemption

The Series 2010B Bonds are subject to redemption prior to maturity at the option of the Water Authority, in whole or in part, on any date following the occurrence of an "Extraordinary Event", at redemption price equal to the greater of:

- (i) 100% of the principal amount of such Series 2010B Bonds to be redeemed, plus accrued and unpaid interest, or
- (ii) The sum of the present values of the remaining scheduled payments of principal and interest on such Series 2010B Bonds to be redeemed discounted to the date of redemption on a semiannual basis at the Treasury Rate plus 100 basis points.

An "Extraordinary Event" occurs if the 35% cash subsidy payment from the US Treasury to the Water Authority is reduced or eliminated as a result of change in provisions of Internal Revenue Code of 1986 pertaining to Build America Bonds or determination by the Internal Revenue Service or the US Treasury that the Bonds do not qualify to receive the subsidy.

The Series 2010B Bonds maturing on April 1, 2025, 2030 and 2040 are subject to mandatory redemption prior to their stated maturity in part on each April 1 on and after April 1, 2021, 2026 and 2031, respectively. The Bonds will be redeemed from moneys required to be credited to the Bond Retirement Account in the Bond Fund at a redemption price equal to the principal amount to be redeemed, together with interest accrued on such principal amount to the date fixed for redemption.

The General Resolution requires the Water Authority to establish rates and other charges for the water that will be sufficient in each fiscal year to produce revenues (with deposits from Rate Stabilization Fund) that will be at least equal to: (i) the fiscal year's debt service and reserve fund replenishment obligations, operation and maintenance expenses (including amounts to be deposited to the Rate Stabilization Fund), and any other charges or liens; (ii) 1.20 times the debt service for such Fiscal Year.

OUTSTANDING REVENUE BONDS PAYABLE

The outstanding Water System Revenue Bonds at May 31, 2019 and 2018 consist of the following:

		Interest	Average Interest	Principal Balance May 31,	Principal	Principal Balance May 31,		Principal Balance May 31, 2019	
Revenue Bonds	Date	Rate	Rate	2018	Matured	2019	Current	Noncurrent	
Series 2010: Series A Bond Uninsured Serial Bond Serial Bond	2011-2012 2013-2020	2-3% 3-4%	2.64% 3.80%	\$2,125,000	\$(1,040,000)	\$1,085,000	\$1,085,000	\$ -	
Total Series A Bonds Series B Bond				2,125,000	(1,040,000)	1,085,000	1,085,000	-	
Term Bond	2025	6.01%	6.01%	6,090,000		6,090,000		6,090,000	
Term Bond	2030	6.45%	6.45%	7,420,000		7,420,000		7,420,000	
Term Bond	2040	6.70%	6.70%	20,455,000		20,455,000		20,455,000	
Total Series B				33,965,000	-	33,965,000	-	33,965,000	
Total Series 2010 Bonds				\$36,090,000	\$(1,040,000)	\$35,050,000	\$1,085,000	\$33,965,000	
Series 2015:									
Serial Bonds - (2015B)	2035	3%-5%	4.51%	\$15,595,000	\$(1,375,000)	\$14,220,000	\$(1,440,000)	\$12,780,000	
Serial Bonds - (2015A)	2035	4%-5%	4.56%	21,310,000	(75,000)	21,235,000	(80,000)	21,155,000	
Term Bond 2040 - (2015A)	2040	5%	5.00%	17,640,000		17,640,000		17,640,000	
Term Bond 2045 - (2015A)	2045	5%	5.00%	10,000,000		10,000,000		10,000,000	
Term Bond 2045 - (2015A)	2045	4%	4.00%	4,900,000		4,900,000		4,900,000	
Total Series 2015A				53,850,000	(75,000)	53,775,000	(80,000)	53,695,000	
Total Series 2015				69,445,000	(1,450,000)	67,995,000	(1,520,000)	66,475,000	
Total				\$105,535,000	\$(2,490,000)	\$103,045,000	\$(435,000)	\$100,440,000	

FUTURE DEBT SERVICE REQUIREMENTS

At May 31, 2019, debt service requirements to maturity for the Bond Series 2010 and 2015 were as follows:

SERIES 2010A BONDS

Date	_	Principal	Interest	_	Total
2020		1,085,000	43,400		1,128,400
Total	\$	1,085,000	\$ 43,400	\$	1,128,400

SERIES 2010B BONDS

Date	Principal	Gross Interest	Subsidy	Net Interest	Total Gross	Total Net
2020	\$ -	\$ 2,215,180	\$ (775,313)	\$ 1,439,867	\$ 2,215,180	\$ 1,439,867
2021	1,125,000	2,215,180	(775,313)	1,439,867	3,340,180	2,564,867
2022	1,170,000	2,147,601	(751,660)	1,395,941	3,317,601	2,565,941
2023	1,215,000	2,077,319	(727,062)	1,350,257	3,292,319	2,565,257
2024-2028	6,845,000	9,213,025	(3,224,559)	5,988,466	16,058,025	12,833,466
2029-2023	8,405,000	6,819,087	(2,386,680)	4,432,407	15,224,087	12,837,407
2024-2028	10,390,000	3,761,606	(1,316,562)	2,445,044	14,151,606	12,835,044
2038-2040	4,815,000	487,498	(170,624)	316,874	5,302,498	5,131,874
Total	\$ 33,965,000	\$ 28,936,496	\$ (10,127,773)	\$ 18,808,723	\$ 62,901,496	\$ 52,773,723

SERIES 2015A BONDS

Date		Principal	Interest	_	Total
2020	\$	80,000	\$ 2,541,413	\$	2,621,413
2021		80,000	2,539,013		2,619,013
2022		85,000	2,536,613		2,621,613
2023		90,000	2,534,063		2,624,063
2024-2028		4,180,000	12,535,813		16,715,813
2029-2033		11,405,000	10,720,663		22,125,663
2034-2038		15,365,000	7,806,500		23,171,500
20,392,043		16,115,000	3,663,600		19,778,600
2044-2045	_	6,375,000	445,400	_	6,820,400
Total	\$	53,775,000	\$ 45,323,078	\$	99,098,078

SERIES 2015B BONDS

Date	Principal	Interest	Total
2020	\$ 1,440,000	\$ 665,731	\$ 2,105,731
2021	1,515,000	593,731	2,108,731
2022	1,590,000	517,981	2,107,981
2023	1,670,000	438,481	2,108,481
2024-2028	6,015,000	948,556	6,963,556
2029-2033	1,375,000	238,763	1,613,763
2034-2038	615,000	31,219	646,219
Total	\$ 14,220,000	\$ 3,434,462	\$ 17,654,462

NOTE 6 – OTHER LONG-TERM LIABILITIES

Changes in long-term liabilities, other than the Bonds, were as follows:

					Due in	Noncurrent
	May 31, 2018	Addition	Reduction	May 31, 2019	1- year	Liability
Accrued vacation and sick leave	\$909,500	\$62,900	\$(40,000)	\$932,400	\$40,000	\$892,400

NOTE 7 – EMPLOYEE BENEFITS

Retirement Plan Description

The Water Authority participates in the New York State and Local Employees' Retirement System (ERS) which are collectively referred to as New York State and Local Retirement System (the System). These are cost-sharing multiple-employer defined benefit retirement systems. The net position of the System is held in the New York State Common Retirement Fund (the Fund), which was established to hold all net assets and record changes in fiduciary net position allocated to the System. The Comptroller of the State of New York serves as the trustee of the Fund and is the administrative head of the System.

The Comptroller is an elected official determined in a direct statewide election and serves a four-year term. Thomas P. DiNapoli has served as Comptroller since February 7, 2007. In November 2014, he was

elected for a new term commencing January 1, 2015. System benefits are established under the provisions of the New York State Retirement and Social Security Law (RSSL). Once a public employer elects to participate in the System, the election is irrevocable. The New York State Constitution provides that pension membership is a contractual relationship and plan benefits cannot be diminished or impaired. Benefits can be changed for future members only by enactment of a State statute. The Water Authority also participates in the Public Employees' Group Life Insurance Plan (GLIP), which provides death benefits in the form of life insurance.

The System is included in the State's financial report as a pension trust fund. That report may be found at www.osc.state.ny.us/retire/publications/index.php or obtained by writing to the New York State and Local Retirement System, 110 State Street, Albany, NY 12244.

Benefits Provided

The System provides retirement benefits as well as death and disability benefits.

Tiers 1 and 2

Eligibility: Tier 1 members, with the exception of those retiring under special retirement plans, must be at least age 55 to be eligible to collect a retirement benefit. There is no minimum service requirement for Tier 1 members. Tier 2 members, with the exception of those retiring under special retirement plans, must have five years of service and be at least age 55 to be eligible to collect a retirement benefit. The age at which full benefits may be collected for Tier 1 is 55, and the full benefit age for Tier 2 is 62.

Benefit Calculation: Generally, the benefit is 1.67 percent of final average salary for each year of service if the member retires with less than 20 years. If the member retires with 20 or more years of service, the benefit is 2 percent of final average salary for each year of service. Tier 2 members with five or more years of service can retire as early as age 55 with reduced benefits. Tier 2 members age 55 or older with 30 or more years of service can retire with no reduction in benefits.

As a result of Article 19 of the RSSL, Tier 1 and Tier 2 members who worked continuously from April 1, 1999 through October 1, 2000 received an additional month of service credit for each year of credited service they have at retirement, up to a maximum of 24 additional months. Final average salary is the average of the wages earned in the three highest consecutive years. For Tier 1 members who joined on or after June 17, 1971, each year of final average salary is limited to no more than 20 percent of the previous year. For Tier 2 members, each year of final average salary is limited to no more than 20 percent of the average of the previous two years.

Tiers 3, 4, and 5

Eligibility: Tier 3 and 4 members, with the exception of those retiring under special retirement plans, must have five years of service and be at least age 55 to be eligible to collect a retirement benefit. Tier 5 members, with the exception of those retiring under special retirement plans, must have ten years of service and be at least age 55 to be eligible to collect a retirement benefit. The full benefit age for Tiers 3, 4 and 5 is 62.

Benefit Calculation: Generally, the benefit is 1.67 percent of final average salary for each year of service if the member retires with less than 20 years. If a member retires with between 20 and 30 years of service,

the benefit is 2 percent of final average salary for each year of service. If a member retires with more than 30 years of service, an additional benefit of 1.5 percent of final average salary is applied for each year of service over 30 years. Tier 3 and 4 members with five or more years of service and Tier 5 members with ten or more years of service can retire as early as age 55 with reduced benefits. Tier 3 and 4 members age 55 or older with 30 or more years of service can retire with no reduction in benefits.

Final average salary is the average of the wages earned in the three highest consecutive years. For Tier 3, 4 and 5 members, each year of final average salary is limited to no more than 10 percent of the average of the previous two years.

Tier 6

Eligibility: Tier 6 members, with the exception of those retiring under special retirement plans, must have ten years of service and be at least age 55 to be eligible to collect a retirement benefit. The full benefit age for Tier 6 is 63 for ERS members and 62 for PFRS members.

Benefit Calculation: Generally, the benefit is 1.67 percent of final average salary for each year of service if the member retires with less than 20 years. If a member retires with 20 years of service, the benefit is 1.75 percent of final average salary for each year of service. If a member retires with more than 20 years of service, an additional benefit of 2 percent of final average salary is applied for each year of service over 20 years. Tier 6 members with ten or more years of service can retire as early as age 55 with reduced benefits. Final average salary is the average of the wages earned in the five highest consecutive years. For Tier 6 members, each year of final average salary is limited to no more than 10 percent of the average of the previous four years.

Ordinary Disability Benefits

Generally, ordinary disability benefits, usually one-third of salary, are provided to eligible members after ten years of service; in some cases, they are provided after five years of service.

Accidental Disability Benefits

For all eligible Tier 1 and Tier 2 ERS and PFRS members, the accidental disability benefit is a pension of 75 percent of final average salary, with an offset for any Workers' compensation benefits received. The benefit for eligible Tier 3, 4, 5 and 6 members is the ordinary disability benefit with the years-of-service eligibility requirement dropped.

Ordinary Death Benefits

Death benefits are payable upon the death, before retirement, of a member who meets eligibility requirements as set forth by law. The first \$50,000 of an ordinary death benefit is paid in the form of group term life insurance. The benefit is generally three times the member's annual salary. For most members, there is also a reduced post-retirement ordinary death benefit available.

Post-Retirement Benefit Increases

A cost-of-living adjustment is provided annually to: (i) all pensioners who have attained age 62 and have been retired for five years; (ii) all pensioners who have attained age 55 and have been retired for ten years; (iii) all disability pensioners, regardless of age, who have been retired for five years; (iv) ERS recipients of an accidental death benefit, regardless of age, who have been receiving such benefit for five

years and (v) the spouse of a deceased retiree receiving a lifetime benefit under an option elected by the retiree at retirement. An eligible spouse is entitled to one-half the cost-of-living adjustment amount that would have been paid to the retiree when the retiree would have met the eligibility criteria. This cost-of-living adjustment is a percentage of the annual retirement benefit of the eligible member as computed on a base benefit amount not to exceed \$18,000 of the annual retirement benefit. The cost-of-living percentage shall be 50 percent of the annual Consumer Price Index as published by the U.S. Bureau of Labor, but cannot be less than 1 percent or exceed 3 percent.

Contributions

The System is noncontributory except for employees who joined the New York State and Local Employees' Retirement System after July 27, 1976, who contribute 3 percent of their salary for the first ten years of membership, and employees who joined on or after January 1, 2010 (ERS) or January 9, 2010 (PFRS) who generally contribute 3 percent of their salary for their entire length of service. For Tier 6 members, the contribution rate varies from 3 percent to 6 percent depending on salary. Generally, Tier 5 and 6 members are required to contribute for all years of service. Under the authority of the NYSRSSL, the Comptroller annually certifies the actuarially determined rates expressly used in computing the employers' contributions based on salaries paid during the Systems' fiscal year ending March 31. Contributions for the current year and two preceding years were equal to 100 percent of the contributions required, and were as follows:

Year Ended May 31,	Contribution
2019	638,525
2018	624,506
2017	595,561

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At May 31, 2019 and May 31, 2018, the Water Authority's reported a liability of \$442,184 and \$1,265,663, respectively, for its proportionate share of the net pension liability. The net pension liability used by the Water Authority was measured as of March 31, 2018 and March 31, 2017, respectively. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of April 1, 2017, and April 1, 2016 with update procedures used to roll forward the total pension liability to March 31, 2018 and April 1, 2017, respectively. The Water Authority's proportion of the net pension liability was based on a projection of the Water Authority's long-term share of contributions to the pension plan relative to the projected contributions of all participating members, actuarially determined. At May 31, 2018 and May 31, 2017, the Water Authority's proportion was 0.0137008% and 0.0134700%, respectively.

For the year ended May 31, 2019 and May 31, 2018, the Water Authority recognized pension expense of \$592,125 and \$763,124, respectively. At May 31, 2019 and 2018, the Water Authority's reported deferred outflows of resources related to pensions from the following sources:

		May 31, 2019				May 31, 2018		
	_	Deferred Outflow of Resources		Deferred Inflow of Resources	· -	Deferred Outflow of Resources	_	Deferred Inflow of Resources
Difference between expected and actual experience Net difference between expected and actual	\$	157,713	\$	130,328	\$	31,717	\$	192,200
investment earnings on pension assets		-		625,475		252,806		-
Changes in assumptions Change in proportion and differences between employer		293,205		-		432,400		-
contribution and proportionate share of contributions Authority contributions subsequent to the		160,924		11,992		126,420		15,989
measurement date		638,525		-		624,506		
Total deferred outflows and inflows of resources	\$	1,250,367	\$	767,795	\$	1,467,849	\$	208,189

The amounts of \$638,525 reported as deferred outflows of resources related to pensions resulting from the Water Authority contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended May 31, 2019. Other amounts reported as deferred outflows of resources related to pensions are recognized in pension expense as follows:

<u>Year</u>	<u>Amount</u>
2020	\$ 83,213
2021	60,876
2022	(204,443)
2023	(95,599)

Actuarial Assumptions.

The total pension asset/(liability) at March 31, 2018 was determined by using an actuarial valuation as of April 1, 2017, with update procedures used to roll forward the total pension asset/(liability) to March 31, 2018, measurement date.

Actuarial cost method	Aggregate cost
Investment rate of return, including inflation	7.0% compounded annually, net of investment
Salary Scale	3.8% indexed by service
Decrement tables	Developed from the Plan's 2015 experience study of
	the period April 1, 2010 through March 31, 2015
Inflation	2.50%
Cost of living adjustment	1.3% annually
Mortality improvement	Gender/ Collar specific tables based on fiscal years
	2011-2015 with Society of Actuaries Scale MP-2014
	loading for mortality improvement

The actuarial assumptions used in the April 1, 2017 valuation are based on the results of an actuarial experience study for the period April 1, 2010 - March 31, 2015.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best estimate ranges of expected future real rates of return (expected return, net of 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 weighing the expected future real rates of return by target asset allocation percentage and by adding expected inflation.

For the measurement date of March 31, 2018, the target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

		Long-term
	Target	Expected
Asset Class	Allocation	Real Rate
Domestic equity	36.00%	4.55%
International equity	14.00%	6.35%
Private equity	10.00%	7.75%
Real estate	10.00%	5.80%
Absolute return strategies	2.00%	4.00%
Opportunistic portfolio	3.00%	5.89%
Real assets	3.00%	5.54%
Bonds and mortgages	17.00%	1.31%
Cash	1.00%	0.25%
Inflation-indexed bonds	4.00%	1.50%
	100.00%	

Discount-Rate. The discount rate used to calculate the total pension liability at May 31, 2019 and 2018 was 7%. The projection of cash flows used to determine the discount rate assumes that contributions from plan members will be made at the current contribution rates and that contributions from employers will be made at the statutorily required rates, actuarially. Based upon the assumptions, the State Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the proportionate share of the net pension liability to the discount rate assumption

The following presents the Water Authority's proportionate share of the net pension liability calculated using the discount rate of 7%, as well as what the Water 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%) or one-percentage point higher (8%) than the current rate:

The Water Authority's Proportionate Share
Of Net Pension Liability

OT Need ension Elability							
1% Decrease	Current Discount	1% increase					
6.0%	7.0 %	8.0%					
\$3,345,683	\$442,184	\$(2,014,060)					
4,042,307	1,265,672	(1,081,967)					

As of May 31, 2019 As of May 31, 2018

Collective Net Position Liability of Participating Employers and Actuarial Information

The components of the net pension liability of the employers as of March 31, 2018 and 2017 were as follows:

(In Thousands)	2018	2017
Employers' total pension liability	\$183,400,590	\$177,400,586
Plan net position	(180,173,145)	(168,004,363)
Employers' net pension liability	\$ 3,227,445	\$ 9,396,223
Fiduciary net position as a percentage of total pension liability	98.2%	94.7%

Accrued Vacation and Sick Leave

The Water Authority employees earn vacation leave each month at a scheduled rate in accordance with the years of service and sick leave at the rate of one day per month. The maximum accumulated sick leave is 60 days. Accumulated unpaid vacation and sick leave amounts are accrued as earned. On May 31, 2019 and May 31, 2018, the liabilities for accrued vacation were \$376,500 and \$357,500, respectively and for the sick leave were 595,900 and \$592,000, respectively.

NOTE 8 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

Plan Description

The New York State Department of Civil Service (DCS) administers the New York State Health Insurance Program (NYSHIP) which provides health insurance to current and retired employees of New York State, participating public authorities, and local governments. As administrator of NYSHIP, DCS performs all relevant administrative tasks. Annual benefit premiums charged to and paid by participants are generally the same, regardless of each individual employer's risk profile. The annual benefit premiums collected by DCS are remitted to the health insurance carrier for participants in the Empire Plan.

NYSHIP, as the name implies, is a program and does not exist as a separate entity or fund; therefore, it does not satisfy the requirements to be classified as a trust or trust equivalent as defined in paragraph 4 of GASBS 43 and paragraph 3 of GASBS 74.

Postemployment health insurance coverage is afforded under single employer defined benefit plan to the Water Authority's retired employees and their dependents in accordance with the provisions of a resolution adopted by the Water Authority's Board of Directors on September 17, 2002 and as amended November 9, 2009. The Board adopted resolution and amended resolution provides eligible enrollees with postretirement medical insurance coverage, limited to the health insurance programs offered by the Water Authority to its then full-time employees, as modified from time-to-time by the Board. These benefits continue for the lifetime of the retiree.

The summary of the retiree medical benefits and life insurance used in the valuation were as follows:

Retiree Medical Benefit

Eligibility

Tier 1 - Hired prior to July 25, 2011: age 55 with 10 years of service.

Tier 2 - Hired on or after July 25, 2011: age 55 with 20 years of service.

Contribution

Tier 1 - retiree pays 40% of the cost of individual retiree medical coverage, and 60% of the cost of spousal coverage.

Tier 2 - retiree pays 50% of the cost of individual retiree medical coverage, and 65% of the cost of spousal coverage.

Plans: NYSHIP pre-65. Medicare Supplement post-65.

Medicare Part B - Reimbursement of the Part B premium for employee and or spouse.

Retiree Life Insurance

Date of Hire prior to June 1, 1996, \$20,000 for hourly employees and \$40,000 for salaried employees, at no cost to the retiree.

Participant Count and Average Age

The number of participants and their average ages as of June 1, 2017 and June 1, 2015, and the effective dates of the annual OPEB valuation, were as follows:

	Jun	e 1, 2017	June 1, 2015			
Participants	Number	Average Age	Number	Average Age		
Active employees	46	49.9	44	48.0		
Retired employees	8	69.4	7	68.0		
Total	54		51			

Funding Policy

The Water Authority currently pays for postemployment health care benefits on a pay-as-you-go basis.

Annual Other Postemployment Benefit Cost

From an accrual accounting perspective, the cost of postemployment healthcare benefits, similar to the cost of pension benefits, generally should be associated with the periods in which the cost occurs, rather than in the future year when it will be paid. Since adopting the requirements of GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, during the year ended May 31, 2009, the Water Authority recognized the cost of postemployment healthcare in the year when the employee services were received, reported the accumulated liability from prior years, and provided information useful in assessing potential demands on the Water Authority's

future cash flows. Recognition of the liability accumulated from prior periods was phased in over 30 years, commencing with the 2009 liability.

The Water Authority's annual other postemployment benefit cost is calculated based on the annual required contribution (ARC) of the employer, an amount actuarially determined in accordance with the parameters of GASB Statement No. 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years.

The annual OPEB cost, the amount of annual OPEB cost contributed to the Plan and Net OPEB obligation for fiscal year 2018 and 2017 were as follows:

Change in Total OPEB Liability

The following table presents the balances and changes of the total OPEB Liability during the fiscal year ended May 31, 2019:

Total OPEB liability - beginning		
Beginning balance	\$	6,040,696
Changes for the year:		
Service cost		208,985
Interest cost		242,479
Differences between expected and actual experience		(43,074)
Changes of assumptions		380,094
Benefit payments	_	(65,124)
Net change in total OPEB liability		723,360
Total OPEB liability - ending	\$	6,764,056

Sensitivity of the Total OPEB Liability to Changes in Discount Rate

The discount rate assumption affects the net OPEB liability. The following table presents the effect of 1% change in the current discount rate of 3.56% on the amount of total OPEB liability:

	1% Decrease	Current	1% Increase
Discount rate	2.56%	3.56%	4.56%
Total OPEB liability as of May 31, 2019	\$8,075,811	\$6,764,056	5,725,810

Sensitivity of the Total OPEB Liability to Healthcare Cost Trend Rates

The volatility of the healthcare costs trend rates affects the size of the total OPEB liability. The following table presents the effect of 1% change in initial 7.5% and ultimate 4.6% healthcare cost trend rates on the amount of total OPEB liability:

	1% Decrease	Current	1% Increase
Healthcare cost trend rate (Initial and ultimate)	(6.50% -3.60%)	(7.50% -4.60%)	(8.50%-5.60%)
Total OPEB liability as of May 31, 2019	\$5,567,346	\$6,764,056	\$8,354,997

OPEB Expense and Deferred Outflows and Inflows of Resources Related to OPEB

For the year ended May 31, 2019, the Water Authority OPEB expense was as follows:

<u>Description</u>	Amount
Service cost	\$ 208,985
Interest on the total OPEB liability	242,479
Differences between expected and actual experience - amortized	(3,682)
Changes of assumptions - amortized	32,487
Total OPEB expense	\$ 480,269

The interest on the total OPEB liability recognized in OPEB expense was determined as follows:

					Interest on
					the Total
	Amount	Portion of	Interest		OPEB
	for Period	Period	Rate	_	Liability
Beginning total OPEB liability	\$ 6,040,696	100%	3.90%	\$	235,587
Service cost	208,985	100%	3.90%		8,150
Benefit payments	\$ (65,124)	50%	3.90%		(1,258)
Total interest on the OPEB liability				\$	242,479

As of May 31, 2019, the unamortized balances of deferred inflows of \$380,094 and deferred outflows of \$43,074 were as follows:

		Deferred		Deferred
Description	_	Inflows	_	Outflows
Difference between expected and actual experience	\$		\$	39,392
Change in assumptions	_	347,607	_	
	\$	347,607	\$	39,392

In 2019, the deferred outflows from the differences between expected and actual experience were estimated at \$380,094, and deferred inflows from change in assumptions were estimated at \$43,074. The deferred outflows and inflows are amortized over 11.7 years and included in OPEB expense as follows:

		Included
Year	_	in Expense
2020	\$	28,805
2021		28,805
2022		28,805
2023		28,805
2024		28,805
2025-2030		164,190

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. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the Water Authority are

subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

Actuarial Methodologies

Reporting Date: May 31, 2019 Measurement Date: May 31, 2019 Actuarial Valuation Date: June 1, 2017

Actuarial Cost Method:

Description of Current Actuarial Cost Method: Entry Age Normal (level percentage of salary)

<u>Normal Cost</u>: Under this method, the total normal cost is the sum of amounts necessary to fund each active member's normal retirement benefit if paid annually from entry age to assumed retirement age. Entry age is the age at which the employee would have been first eligible for the plan, if it had always been in effect. The cost for the plan is the difference between the total normal cost for the year and the anticipated member contributions for that year.

<u>Past Service Liability</u>: The present value of future benefits that relates to service before the valuation date is the total past service liability.

Description of Actuarial Assumptions

The valuation reflects changes in the actuarial assumptions regarding interest, mortality, inflation, healthcare cost trend Rates and morbidity. The assumptions were changed to represent the Enrolled Actuary's current best estimate of anticipated experience of the plan.

Interest

3.56% (Prior: 3.90%)

Since the OPEB plan is not funded, the selection of the discount rate is consistent with the GASB 74/75 standards linking the discount rate to the 20- year AA municipal bond index for unfunded OPEB plans. The discount rate used for this valuation is equal to the published Bond Buyer GO 20-Bond Municipal Index effective as of May 31, 2019.

Rate of compensation increase (including inflation) 2.60%.

The assumption is based on historical national wage increases and input from the plan sponsor regarding future expectations.

Inflation

2.60%. (Prior: 3.00%)

This assumption is consistent with the Social Security Administration's current best estimate of the ultimate long-term (75-year horizon) annual percentage increase in CPI, as published in the 2017 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust (OASDI).

Mortality

RP-2014 Adjusted to 2006 Total Dataset Mortality Table projected to valuation date with Scale MP-2017. (Prior: RP-2000 Mortality Table with separate male and female rates, with no collar adjustment, separate tables for non-annuitants and annuitants, projected to the valuation date with Scale BB.)

Mortality Improvement

Projected to date of decrement using Scale MP-2017 (generational).

(Prior: Projected to date of decrement using Scale BB (generational).

We have selected this mortality assumption because it is based on the latest published pension mortality study released by the Society of Actuaries.

Retirement Age

Percentage of Employees Retiring Prior to End of Year:

Age	Rate
Less than 62	0%
62-64	9%
65-69	20%
70+	100%

Termination Prior to Retirement

Sample Age-Based Withdrawal Rates (until eligible to retire).

Vaughn Ultimate Table multiplied by 0.5, Percentage of Employees Terminating prior to End of Year:

Age	Rate
25	6.80%
30	5.05%
35	3.95%
40	3.25%
45	2.75%
50	2.25%
55+	0.00%

The actuarial assumption regarding the withdrawal rates are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Utilization

100% of current active members will elect medical coverage at retirement.

Spousal Coverage

50% of active members are assumed to be married and elect spousal benefits at retirement with wives 3 years younger than husbands.

Healthcare Cost Trend Rates

The rate of increase is 7.50% in 2017, decreasing by 0.5% each year to an ultimate rate of 4.60% per year for 2023 and later. (Prior: 7.00% in 2017, reducing by 0.5% each year to a final 5.00% per year rate for 2021 and later.)

Medicare Part B is assumed to increase by 2.60% per year. (Prior: 3.00% per year.)

Healthcare cost trend rates reflect both the current and long-term outlook for increases in healthcare costs. The short-term rates are based on recent industry surveys, plan experience and near-term expectations. The long-term trend rate is based on our general inflation assumption plus an adjustment to reflect expectations for long-term medical inflation.

The trend rates were changed to align with the inflation assumption change.

Annual Medical Premium Rates

	2018	2017
Pre-65 - Employee Only	\$ 12,180	\$11,333
Pre-65 – Family	28,178	25,928
Post 65 – Employee Only	5,333	5,057
Post 65 – Two Person	14,483	13,376
Medicare Part B	1,608	1,608

For the valuation, we used seven months at 2017 rate and five months at 2018 premium rate. Premiums were used as the basis for per capita costs.

Expected Claim Costs

Sample Age	(Male)	_	(Female)
45	\$ 8,077	\$	11,259
50	10,548		13,118
55	13,842		15,282
60	17,831		17,825
64	21,776		20,867

The sample per capita claim for plans not integrated with Medicare was developed as follows: Using the total count of active participants eligible for post-retirement medical benefits and retirees currently electing medical coverage in a non-Medicare supplement plan, we calculate the total projected claims by multiplying the total count by the average annual premium. Using the cost increases derived from a study sponsored by the Society of Actuaries prepared by Dale H. Yamamoto from May 2013: "Health Care Costs from Birth to Death", we allocate the total projected claims by age and gender.

(Prior: The sample per capita claim for plans not integrated with Medicare was developed as follows: Using the total count of active participants eligible for post-retirement medical benefits and retirees currently electing medical coverage in a non-Medicare supplement plan, we calculate the total projected claims by multiplying the total count by the average annual premium. Using the cost increases derived from a study sponsored by the Society of Actuaries prepared by J.P Petertil from August 1, 2003: "Aging Curves for Health Care Costs in Retirement", we allocate the total projected claims by age.)

For plans integrated with Medicare, the post Medicare eligible premium is assumed to be unaffected by age.

The per capita claims method was changed to reflect the most recent study (and better reflect actual experience).

Patient Protection and Affordable Care Act (PPACA)

High Cost Plan Excise Tax ("Cadillac Tax"): Effective in 2022, there will be a 40% excise tax on per capita medical benefit costs in excess of certain thresholds, which (in 2018) are \$10,200 for single coverage and \$27,500 for family coverage for Medicare eligible retirees. Thresholds (in 2018) for retirees who are between ages 55 and 65 are \$11,850 and \$30,950 for single and family coverage respectively. After 2018,

the thresholds are indexed by CPI (CPI +1% in 2018 only). CPI is assumed to equal the inflation assumption. The impact of this future excise tax has been reflected in plan liabilities.

Other Requirements of PPACA:

For purposes of this valuation, extended coverage for adult children and 100% coverage of preventive care are assumed to be reflected in per capita costs.

For purposes of this valuation, elimination of lifetime maximum benefits and removal of the limits on essential healthcare are assumed to have no impact on plan liabilities.

NOTE 9 – NET POSITION

Net position represents the difference between assets and liabilities. The net asset amounts were:

	May 31, 2019	_	May 31, 2018
Invested in capital assets net of related debt:			
Capital assets, net of accumulated depreciation	\$ 99,370,879	\$	87,136,941
Revenue bonds and other payables related to capital assets	(105,831,800)		(105,535,000)
Bond premium	(7,987,617)		(8,364,326)
Deferred outflows	25,605		27,205
Unspent debt proceeds in construction and reserve funds	41,405,815		51,401,166
Bond issue costs	5,683		10,984
Total invested in capital assets, net of related debt	26,988,565		24,676,970
Restricted for Rate Stabilization and Customer Deposits:			
Restricted cash and equivalents	3,226,335		2,717,202
Less: customer deposits	(1,226,335)	_	(1,195,202)
Total restricted for capital activity, rate stabilization and debt service	2,000,000		1,522,000
GASB 75 implementations	-		(2,579,837)
Unrestricted	(1,175,332)	_	1,530,150
Total unrestricted (Deficit)	(1,175,332)		(1,049,687)
Total net position	\$ 27,813,233	\$	25,149,283

On May 31, 2018, the unrestricted net position was reduced by \$2,579,837 for recognizing additional net other postemployment benefits, as a consequence of implementing GASB statement 75.

NOTE 10 - COMMITMENTS AND CONTINGENCIES

Litigation

The Water Authority is subject to lawsuits in the ordinary conduct of its affairs. The Water Authority does not believe, however, that any such suits, individually or in the aggregate, are likely to have a material adverse effect on the financial condition of the Water Authority.

Risk Management

The Water Authority is exposed to various risks of loss related to torts, theft, damage, injuries, errors and omissions, natural disasters and other risks. These risks are covered by commercial insurance purchased from independent third parties. Settled claims from these risks have not exceeded commercial insurance coverage for the past three years.

Insurance

The Water Authority's commercial insurance coverage provides for virtually all risks of loss including property, liability, automobile accidents and public official's coverage. The Water Authority also carries umbrella liability insurance coverage. This coverage is comparable to that of the prior fiscal year.

Compliance

The Water Authority is subject to various laws and regulations, which establish uniform minimum national water quality standards. The Water Authority has set up procedures for the continued evaluation of its operations to identify potential exposures and assure compliance with these standards.

NOTE 11 – LEASE REVENUE AGREEMENTS

The Water Authority has two lease agreements in place with different cell phone providers (licensees) for the leasing of Water Authority property to install and maintain cell phone transmission towers. Licensees may terminate the Agreement at any time with a thirty days prior written notice to the Water Authority provided that Licensee has removed all of its personal property and has vacated and surrendered the nonexclusive possession of the Licensed Premises to the Water Authority prior to the effective date of the termination. The lease agreements are subject to an annual rental increase of 2% to 4%. For the year ended May 31, 2019 the revenues from the lease agreements was \$303,506

NOTE 12 – RATE CHANGES

Under the Water Authority Charter, the Board is empowered to set rates for all its customers. The rates are to be sufficient to pay for operations, maintenance, reserves, debt service, additions, extensions and betterment of the facilities. The Board has approved 3.83% and 2.5% increase in water rates effective on June 1, 2019 and June 1, 2018, respectively.

NOTE 13 – SUBSEQUENT EVENTS

The Water Authority evaluated subsequent events from May 31, 2019 through August 30, 2019, the date on which the financial statements were available to be issued and determined that there were no material subsequent events.

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SECTION C: REQUIRED SUPPLEMENTARY INFORMATION



THE WATER AUTHORITY OF WESTERN NASSAU COUNTY SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS LAST FISCAL YEAR*

Total OPEB liability	
Service cost	\$ 208,985
Interest	242,479
Differences between expected and actual experience	(43,074)
Changes of assumptions	380,094
Benefit payments	(65,124)
Net change in total OPEB liability	723,360
Total OPEB liability - beginning	6,040,696
Total OPEB liability - ending	\$ 6,764,056
Plan Fiduciary Net Position	
Contributions employer	\$ 65,124
Actuarial benefit payments	(65,124)
Net change in fiduciary net position	-
Plan fiduciary net position- beginning	
Plan fiduciary net position- ending	
Net OPB Liability -ending	\$ 6,764,056
Plan's fiduciary net position as a percentage of total OPEB liability	0.00%
Covered payroll	\$ 4,078,195
Total OPEB liability as a % of covered payroll	165.86%

The notes to the Required Supplementary Information is an integral part of this schedule.

^{*}Information prior to the year ended May 31, 2019 is not available.

THE WATER AUTHORITY OF WESTERN NASSAU COUNTY SCHEDULE OF THE WATER AUTHORITY'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY NEW YORK STATE EMPLOYEES' RETIREMENT SYSTEM YEARS ENDED MAY 31 2019, 2018, 2017 AND 2016

	Year Ended May 31,					
	2019	2018	2017	2016		
Measurement date	3/31/2018	3/31/2017	3/31/2016	3/31/2015		
Water Authority's proportion share of net pension liability	0.0137008%	0.0134700%	0.0139611%	0.0139346%		
Water Authority's proportionate share of net pension liability	\$442,184	\$1,265,672	\$2,240,800	\$470,745		
Water Authority's covered-employee payroll	\$4,078,195	\$4,279,714	\$4,181,783	\$3,914,860		
Water Authority's proportionate share of the net						
pension liability as a percentage of its covered-						
employee payroll	10.84%	29.60%	53.60%	12.00%		
Plan fiduciary net position as a percentage of the total						
pension liability	98.20%	94.70%	90.70%	97.90%		

This schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

The notes to the Required Supplementary Information is an integral part of this schedule.

THE WATER AUTHORITY OF WESTERN NASSAU COUNTY

SCHEDULE OF CONTRIBUTIONS TO NEW YORK STATE EMPLOYEES RETIREMENT SYSTEM LAST TEN FISCAL YEARS

Year Ended May31,	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Contractually required contribution Contributions in relation to required	\$638,525	\$624,506	\$595,561	\$688,041	\$748,116	\$724,700	\$696,900	\$595,700	\$452,300	\$306,700
contribution	\$638,525	\$624,506	\$595,561	\$688,041	\$748,116	\$724,700	\$696,900	\$595,700	\$452,300	\$306,700
Contribution excess (deficiency)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered-employee payroll Contributions as percentage of covered payroll	\$4,078,195	\$4,279,714	\$4,181,783	\$3,914,860	\$3,924,590	\$3,776,376	\$3,589,958	\$3,715,880	\$3,708,940	\$3,544,464
	15.66%	15.45%	14.24%	17.58%	19.06%	19.19%	19.41%	16.03%	12.19%	8.65%

The notes to the Required Supplementary Information is an integral part of this schedule.

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SECTION D: REPORT ON COMPLIANCE AND INTERNAL CONTROL







REPORT ON COMPLIANCE AND ON INTERNAL CONTROL OVER FINANCIAL REPORTING BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

Board of Directors Water Authority of Western Nassau County New Hyde Park, New York

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Water Authority of Western Nassau County, New York, as of and for the year ended May 31, 2019, and the related notes to the financial statements, which collectively comprise the Water Authority of Western Nassau County, New York's basic financial statements, and have issued our report thereon dated August 30, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Water Authority of Western Nassau County's, New York's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Water Authority of Western Nassau County, New York's internal control. Accordingly, we do not express an opinion on the effectiveness of the Water Authority of Western Nassau County, New York's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

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Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Water Authority of Western Nassau County, New York's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

TABRIZTEHI & CO., CPA, P.C.

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Astoria, NY

August 30, 2019