THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY

REPORT OF AUDIT

FOR THE FISCAL YEARS ENDED

SEPTEMBER 30, 2018 AND 2017

BOWMAN & COMPANY LLP
CERTIFIED PUBLIC ACCOUNTANTS & CONSULTANTS

The Mantua Township Municipal Utilities Authority

Table of Contents

ROSTER OF OFFICIALS
As of September 30, 2018

MEMBERS	POSITION
Tom Gregg	Chairman
Charles W. Burkett	Vice-Chairman
Mario Dilisciandro	Treasurer
Tim Sheehan	Secretary
Vincent Voltaggio	Engineering Coordinator
Butch Bruner	Alternate #1
John Parks	Alternate #2
MANAGEMENT	
William M. Krebs	Executive Director/Superintendent
PROFESSIONALS	
John Alice, Esq.	Solicitor
Mark R. Brunermer, PE, CME	Engineer

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY

FINANCIAL SECTION

FOR THE FISCAL YEARS ENDED SEPTEMBER 30, 2018 AND 2017

INDEPENDENT AUDITOR'S REPORT

The Chairman and Members of
The Mantua Township Municipal Utilities Authority
Mantua, New Jersey

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities of The Mantua Township Municipal Utilities Authority, State of New Jersey, a component unit of the Township of Mantua ("Authority"), as of and for the fiscal years ended September 30, 2018 and 2017 and the related notes to the financial statements, which collectively comprise The Mantua Township Municipal Utilities Authority's financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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 an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States; and in compliance with audit requirements as prescribed by the Bureau of Authority Regulation, Division of Local Government Services, Department of Community Affairs, State of New Jersey. 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.

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Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the business-type activities of The Mantua Township Municipal Utilities Authority as of September 30, 2018 and 2017, and its changes in financial position and its cash flows thereof for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Adoption of New Accounting Principles

As discussed in note 1 to the financial statements, during the fiscal year ended September 30, 2018, the Authority adopted new accounting guidance, 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 required supplementary information as listed in the table of contents be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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 Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The accompanying supplementary schedules as listed in the table of contents are not a required part of the basic financial statements. The accompanying schedule of state financial assistance, as required by State of New Jersey Circular 15-08-OMB, Single Audit Policy for Recipients of Federal Grants, State Grants and State Aid is also presented for purposes of additional analysis and is not a required part of the basic financial statements

The accompanying supplementary schedules as listed in the table of contents and schedule of state financial assistance are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the accompanying supplementary schedules as listed in the table of contents are fairly stated, in all material respects, in relation to the financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated September 10, 2019 on our consideration of the Authority'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 solely 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 the effectiveness of the Authority's 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 Authority's internal control over financial reporting and compliance.

Respectfully submitted,

Bowman & Company LLP

BOWMAN & COMPANY LLP
Certified Public Accountants
& Consultants

Woodbury, New Jersey
September 10, 2019

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

INDEPENDENT AUDITOR'S REPORT

The Chairman and Members of
The Mantua Township Municipal Utilities Authority
Mantua, New Jersey

We have audited, in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, and in compliance with audit requirements as prescribed by the Bureau of Authority Regulation, Division of Local Government Services, Department of Community Affairs, State of New Jersey, the financial statements of the business-type activities of The Mantua Township Municipal Utilities Authority, in the County of Gloucester, State of New Jersey, a component unit of the Township of Mantua ("Authority"), as of and for the fiscal year ended September 30, 2018, and the related notes to the financial statements, which collectively comprise the Authority's financial statements, and have issued our report thereon dated September 10, 2019. Our report on the financial statements included an emphasis of matter paragraph regarding the adoption of a new accounting principle.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority'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 opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority'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 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.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority'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 that are required to be reported under *Government Auditing Standards*, and audit requirements as prescribed by the Bureau of Authority Regulation, Division of Local Government Services, Department of Community Affairs, State of New Jersey.

Purpose of this Report

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 and the audit requirements as prescribed by the Bureau of Authority Regulation, Division of Local Government Services, Department of Community Affairs, State of New Jersey in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Respectfully submitted,

Bowman & Company LLP

BOWMAN & COMPANY LLP
Certified Public Accountants
& Consultants

Woodbury, New Jersey
September 10, 2019

MANTUA TOWNSHIP
MUNICIPAL UTILITIES AUTHORITY

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Management's Discussion and Analysis
(MD&A)

FINANCIAL HIGHLIGHTS

Management believes the financial position of the Mantua Township Municipal Utilities Authority (the "Authority") is strong. According to its bond covenants, the Authority is required to make a 110% cover on debt service. For the current year, the Authority did meet the required cover and remains confident of meeting all of its financial obligations. Key financial highlights for the Authority's fiscal year 2018 were:

- During 2018, the Authority posted a cumulative adjustment of $4,000,459.06 to correct the beginning balance of net position in the financial statements in fiscal year 2018, the earliest period presented, to accrue the liability for the Authority's other post-employment benefits (OPEB) plans.

- Operating expenses were $3,504,874.05, versus $3,681,224.44 in 2017 and $3,687,417.99 in 2016. The decrease in 2018 versus prior years is primarily the result of decreased spending across administration and operating expenses.

- Consumer accounts receivable as of September 30, 2018 and 2017 were $349,553.60 and $340,173.14, respectively.

- Service charges and connection fee revenues in 2018 were $3,950,107.13 and $57,950.00, respectively.

- At year-end, total assets were $18,663,300.51; deferred outflows were $715,524.00; liabilities were $10,575,588.39; and deferred inflows were $2,510,834.71. The resultant net position at year-end was $6,292,401.41.

OVERVIEW OF THE FINANCIAL STATEMENTS

The entire annual financial report consists of five parts; Independent Auditor's Report, the management's discussion and analysis (this section), the basic financial statements, required supplementary information and supplemental schedules.

The basic financial statements report information about the Authority as a whole using accounting methods similar to those used by private-sector companies ("business-type activities"). The focus of the financials is the measurement of economic resources, that is, the determination of operating income, changes in net position (or cost recovery), financial position and cash flows. The Statements of Net Position includes all of the Authority's assets, deferred outflows of resources, liabilities, and deferred inflows of resources. As the Authority follows the accrual method of accounting, the current year's revenue and expenses are accounted for in the Statements of Revenues, Expenses and Changes in Net Position regardless of when cash is received or paid. Net position - the difference between the Authority's assets, deferred outflows of resources, liabilities, and deferred inflows of resources - are a measure of the Authority's financial health or position. The statements of revenues, expenses and changes in fund net position provide a breakdown of the various areas of revenues and expenses encountered during the current year.

The Statements of Cash Flows provides a breakdown of the various sources of cash flow, categorized into four areas: Cash flows from operating activities, noncapital financing activities, capital and related financing activities and investing activities.

Schedules for the Authority's post-retirement plan and the State-administered pension plan are presented as Required Supplementary Information.

FINANCIAL ANALYSIS OF THE AUTHORITY AS A WHOLE

The Authority's total net position was $6,292,401.41 on September 30, 2018. Total assets, deferred outflows of resources, total liabilities, deferred inflows of resources, and total net position are detailed below.

Restricted Assets	1,610,423.88	4,053,450.63	1,296,216.24
Capital Assets	13,015,095.00	11,221,811.42	11,538,104.58
Total Assets	**18,663,300.51**	**18,625,746.41**	**15,425,206.78**
Deferred Outflows of Resources			
Related to Pensions	404,680.00	532,175.00	639,023.00
Related to Other Post-Employment Benefits	264,161.04		
Deferred Loss on Refinancing (Net of Accumulated Amortization)	46,682.96	55,447.76	64,883.96
Total Deferred Outflows of Resources	**715,524.00**	**587,622.76**	**703,906.96**
Current Liabilities	3,717,426.78	3,774,183.58	813,283.90
Long-term Liabilities	6,858,161.61	4,805,653.89	5,497,483.72
Total Liabilities	**10,575,588.39**	**8,579,837.47**	**6,310,767.62**
Deferred Inflows of Resources	**2,510,834.71**	**755,890.76**	**359,181.80**
Net Position (Deficit):			
Net Investment in Capital Assets	7,934,227.78	8,518,338.88	8,530,025.97
Restricted	1,251,185.37	1,237,840.12	1,212,647.12
Unrestricted	(2,893,011.74)	121,461.94	(283,508.77)
Total Net Position	**$ 6,292,401.41**	**$ 9,877,640.94**	**$ 9,459,164.32**

FINANCIAL ANALYSIS OF THE AUTHORITY AS A WHOLE (CONTINUED)

The Authority realized operating income of $657,913.61 for the current year. Combined with net non-operating expenses of $242,694.08, the Authority's total change in net position for the current year was an increase of $415,219.53. Major components of this activity are detailed below.

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Statements of Revenues, Expenses and Changes in Net Assets
For the Fiscal Years Ended September 30, 2018, 2017, and 2016

	2018	2017	2016
Operating Revenues:			
Utility Service Charges	$ 3,950,107.13	$ 3,959,163.29	$ 4,123,606.89
Other Operating Revenues	212,680.53	217,881.44	114,748.29
	4,162,787.66	**4,177,044.73**	**4,238,355.18**
Operating Expenses:			
Administration	831,435.13	779,875.96	787,776.91
Cost of Providing Services	2,285,212.53	2,241,243.54	2,226,138.29
Depreciation and Amortization	388,226.39	660,104.94	673,502.79
	3,504,874.05	**3,681,224.44**	**3,687,417.99**
Operating Income	**657,913.61**	**495,820.29**	**550,937.19**
Non-operating Revenues (Expenses):			
Tower Rental Income	53,323.41	56,876.98	77,943.49
Investment Income	32,919.05	4,479.13	1,344.24
Interest on Debt	(83,556.22)	(90,594.51)	(90,828.01)
Payment to the Township of Mantua	(184,156.00)	(179,951.00)	(173,224.00)
Miscellaneous Non-operating Expenses	(61,224.32)	131,845.73	(379,799.27)
Increase (Decrease) in Net Position	**415,219.53**	**418,476.62**	**(13,626.36)**
Net Position October 1, 2017			
Net Position October 1	**9,877,640.94**	**9,459,164.32**	**9,472,790.68**
Cumulative Effect of Change in Accounting Principle	**(4,000,459.06)**		
Net Position October 1, As Restated	**5,877,181.88**		
Net Position September 30	**$ 6,292,401.41**	**$ 9,877,640.94**	**$ 9,459,164.32**

OVERALL ANALYSIS

There was a decrease in unrestricted and restricted assets from 2017 to 2018 of $1,755,729.48, which is mostly due to a decrease in receivable due from the State.

From 2017 to 2018, there was a decrease in current assets ($1,755,729.48), an increase in deferred outflows ($127,901.24), an increase in deferred inflows ($1,754,943.95), and an increase in long-term liabilities ($2,052,507.72). These changes from 2017 to 2018 are due to the Authority's fiscal year 2018 activity in their pension plan (PERS) balances based on the June 30, 2018 PERS plan audit, as well as the amortization of the deferred loss on refinancing. The increase in long-term liabilities is also due to the Authority's current year activity in their other post-employment benefits plan (OPEB) balances based on the plan's actuarial report. The decrease in current liabilities is related to the note payable due to the State.

From 2016 to 2017, there was an increase in current assets ($2,728,565.07), a decrease in deferred outflows ($116,284.20), an increase in deferred inflows ($396,708.96), and a decrease in long-term liabilities ($682,895.76). These changes from 2016 to 2017 are due to the Authority's fiscal year 2017 activity in their pension plan (PERS) balances based on the June 30, 2017 PERS plan audit, as well as the amortization of the deferred loss on refinancing. The decrease in long-term liabilities is also due to the Authority's current year activity in their other post-employment benefits plan (OPEB) balances based on the plan's actuarial report. The increase in current liabilities is related to the note payable due to the State.

The Authority's overall financial position is firm. From 2017 to 2018, the Authority experienced a slight decrease in operating revenues of $14,257.07. The Authority experienced no decrease in the number or overall mix of its residential, commercial, public and industrial customer billing base. The rate structure approved in November, 2013 resulted in a minimum water rate increase from $33/quarter to $45/quarter and the sewer rate increase from $82/quarter to $92/quarter. The Authority continued to see the positive effects of this rate increase during 2017 and 2018.

Connection fee revenue in the current year was $57,950.00 versus $60,500.00 in 2017 and 20,200.00 in 2016. The increase in fees from 2017 from 2016 can be attributed to a very small increase in residential housing construction. Developers pay connection fees upon submittal of plans to connect residential developments, commercial properties, etc. into the Authority's water and/or sewer systems. The Authority recognizes these payments as revenue on the date of the Certificate of Occupancy.

Overall, the Authority believes it is managing its financial position as efficiently as possible in spite of the challenging fiscal environment. Net position decreased by $3,585,239.53 in 2018, increased by $418,476.62 in 2017and decreased by $13,626.36 in 2016. The decrease in net position for 2018 was due to a cumulative effect of change in accounting principles (GASB 75) in the amount of $4,000,459.06. The increase in net position for 2017 was due to increased revenue and a decrease in spending. The decrease in net position for 2016 was primarily due to an increase in expenses for improvements incurred by the Authority. The makeup of the ratepayer base is well diversified. The residential and public sectors, the most stable when considering the volatility of a billing base, comprise approximately 91.5% of the Authority's customers, however, there has been a noted increase in vacant residential properties due to the continuing economic malaise of the housing market. There is no particular emphasis or imbalance in the type of business enterprises within the commercial sector. Industrial users exist, but do not comprise a major portion of the Authority's billing base.

BUDGET VARIANCES

The actual sewer service charge revenue in 2018 [$1,929,338.91 - $1,938,000.00] = $8,661.09 was less than budgeted and in 2017 [$1,919,819.00 - $1,938,276.00] = $18,457.00 was less than budgeted because penalties charged to customers were less than budgeted for both years. The water service charges in 2018 [$2,020,768.22 - $2,194,550.00] = $173,781.78 were less than budgeted due to a wetter than normal summer and in 2017 [$2,039,344.29 - $2,079,448.00] = $40,103.71 were less than budgeted due to a wetter than normal summer.

There were no connection fee revenues budgeted for in 2018 and 2017. Actual revenues collected for connection fees totaled $57,950.00 for 2018 and totaled $60,500.00 for 2017.

Total Operating Appropriations once again came in well under our budget at a savings of $281,583.29 in 2018 and $326,750.50 in 2017 due to a strong commitment from the Authority's employees to control spending.

During fiscal years 2018 and 2017, the Township of Mantua exercised its right to request 5% of the appropriated annual costs of operation of the Authority per N.J.S.A. 40A: 5A-12.1 totaling $184,156.00 and $179,951.00, respectively.

CAPITAL ASSET AND LONG-TERM DEBT ACTIVITY

The footnotes to the Authority's financial statements detail changes in capital assets and long-term liabilities.

During the current year, the Authority added $1,331,759.81 in capital assets.

The Authority continues to maintain a proactive maintenance philosophy for its capital facilities. The Authority has four water capital projects and one sewer capital projects along with an additional equipment purchases funded through the budget, General Fund and Renewal and Replacement Fund.

The proposed five-year Capital Program in fiscal year 2019 is $13,305,000.00. The major line items making up a portion of the Capital Budget are:

1. Water well and sewer rehabilitation, water and sewer main replacements
2. Utility and pick-up trucks, safety equipment and computers

The Authority is seeking to obtain financing for some of these capital improvements.

The Authority's 'AA-'/stable rating was reaffirmed in a thorough review of its financial position by Standard & Poor's Financial Services LLC in February, 2012 and again in April, 2014. The Authority does not anticipate any change in its excellent credit rating. Although the Authority does not operate under any debt limitations, it is required to receive approval from the Local Finance Board prior to issuing any debt.

The bond covenant requires that the Authority is required to make a 110% cover on debt service. The Authority did meet the required coverage. Due to aggressive fiscal management, the Excess of Revenue was $864,146.85 in 2018, $918,206.73 in 2017, and $1,015,887.10 in 2016.

$377,496.27 of debt service payments scheduled in 2018 were paid. As stated in the footnotes to the financial statements, the 2008A New Jersey Environmental Infrastructure Trust loans was refinanced in 2016.

CONTACTING THE AUTHORITY'S FINANCIAL MANAGEMENT

This financial report is designed to provide Mantua Township's citizens and our customers, clients, investors and creditors, with a general overview if the Authority's finances and to demonstrate the Authority's accountability for the public funds it receives. If you have questions about this report or need additional financial information, contact the Executive Director, William M. Krebs, Mantua Township Municipal Utilities Authority, 397 Main Street, Mantua, New Jersey 08051.

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Statements of Net Position
September 30, 2018 and 2017

	2018	2017
ASSETS		
Current Assets:		
Unrestricted Assets:		
Cash and Cash Equivalents	$ 3,354,124.43	$ 2,683,812.66
Accounts Receivable, Net of Allowance for Doubtful Accounts of $31,743.46 in 2018 and $30,627.92 in 2017	623,116.29	612,937.32
Inventory	50,337.95	43,708.80
Prepaid Expenses	10,202.96	10,025.58
Total Unrestricted Assets	4,037,781.63	3,350,484.36
Restricted Assets:		
Cash and Cash Equivalents	949,853.51	936,812.26
NJEIT Program Receivable	270,028.00	2,726,096.00
Total Restricted Assets	1,219,881.51	3,662,908.26
Total Current Assets	5,257,663.14	7,013,392.62
Noncurrent Assets:		
Restricted Assets:		
Cash and Cash Equivalents	390,542.37	390,542.37
Capital Assets:		
Utility Plant in Service (Net of Accumulated Depreciation)	11,455,692.19	10,455,967.35
Construction in Progress	1,446,571.67	596,821.51
Utility Plant Acquisition Costs (Net of Accumulated Amortization)	112,831.14	169,022.56
Total Capital Assets	13,015,095.00	11,221,811.42
Total Noncurrent Assets	13,405,637.37	11,612,353.79
Total Assets	$ 18,663,300.51	$ 18,625,746.41
DEFERRED OUTFLOWS OF RESOURCES		
Related to Pensions	$ 404,680.00	$ 532,175.00
Related to Other Post-Employment Benefits	264,161.04	-
Deferred Loss on Refinancing (Net of Accumulated Amortization)	46,682.96	55,447.76
Total Deferred Outflows of Resources	$ 715,524.00	$ 587,622.76

(Continued)

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Statements of Net Position
September 30, 2018 and 2017

	2018	2017
LIABILITIES		
Current Liabilities Payable from Unrestricted Assets:		
Accounts Payable and Accrued Expenses	$ 674,278.42	$ 695,248.78
Developers' Deposits	35,267.15	39,729.38
Compensated Absences	8,934.07	8,934.07
Total Current Liabilities Payable from Unrestricted Assets	718,479.64	743,912.23
Current Liabilities Payable from Restricted Assets:		
Revenue Bonds Payable - Current Portion	190,000.00	180,000.00
NJEIT Note Payable	2,684,329.00	2,726,096.00
NJ EIT Loans - Current Portion	115,299.85	113,940.05
Accrued Interest Payable	9,318.29	10,235.30
Total Current Liabilities Payable from Restricted Assets	2,998,947.14	3,030,271.35
Long-term Liabilities:		
Compensated Absences	127,660.28	125,614.64
Revenue Bonds Payable	1,057,429.81	1,248,172.12
NJ EIT Loans Payable	1,080,491.52	1,216,808.13
Pension Liability - Contribution Subsequent To Measurement Date	21,037.00	19,250.00
Pension Liability	1,665,659.00	1,934,881.00
Other Post-Employment Benefits Liability	2,905,884.00	260,928.00
Total Long-term Liabilities	6,858,161.61	4,805,653.89
Total Liabilities	$ 10,575,588.39	$ 8,579,837.47
DEFERRED INFLOWS OF RESOURCES		
Deferred Revenue	$ 305,300.71	$ 293,143.76
Related to Other Post-Employment Benefits	1,598,216.00	-
Related to Pensions	607,318.00	462,747.00
Total Deferred Inflows of Resources	$ 2,510,834.71	$ 755,890.76
NET POSITION (DEFICIT)		
Net Investment in Capital Assets	$ 7,934,227.78	$ 8,518,338.88
Restricted for Bond Trust Indenture		
Restricted Bond Reserve Fund	390,542.37	390,542.37
Restricted Operating Fund	860,643.00	847,297.75
Unrestricted Deficit	(2,893,011.74)	121,461.94
Total Net Position	$ 6,292,401.41	$ 9,877,640.94

The accompanying Notes to Financial Statements are an integral part of this statement.

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Statements of Revenues, Expenses and Changes in Net Position
For the Fiscal Years Ended September 30, 2018 and 2017

	2018	2017
Operating Revenues:		
Utility Service Charges	$ 3,950,107.13	$ 3,959,163.29
Connection Fees	57,950.00	60,500.00
Other Operating Revenues	154,730.53	157,381.44
	4,162,787.66	4,177,044.73
Operating Expenses:		
Administration:		
Salaries and Wages	344,138.56	318,109.46
Fringe Benefits	262,670.31	247,409.92
Other Expenses	224,626.26	214,356.58
Cost of Providing Services:		
Salaries and Wages	405,029.39	382,557.39
Fringe Benefits	252,099.83	338,619.41
Other Expenses	1,628,083.31	1,520,066.74
Depreciation and Amortization	388,226.39	660,104.94
	3,504,874.05	3,681,224.44
Operating Income	657,913.61	495,820.29
Non-operating Revenue (Expenses):		
Tower Rental Income	53,323.41	56,876.98
Investment Income	32,919.05	4,479.13
Interest on Debt	(83,556.22)	(90,594.51)
Payment to the Township of Mantua	(184,156.00)	(179,951.00)
Miscellaneous Non-operating Income (Expenses)	(61,224.32)	131,845.73
Change in Net Position	415,219.53	418,476.62
Net Position October 1	9,877,640.94	9,459,164.32
Cumulative Effect of Change in Accounting Principles	(4,000,459.06)	-
Net Position October 1 (Restated)	5,877,181.88	9,459,164.32
Net Position September 30	$ 6,292,401.41	$ 9,877,640.94

The accompanying Notes to Financial Statements are an integral part of this statement.

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Statements of Cash Flows
For the Fiscal Years Ended September 30, 2018 and 2017

	2018	2017
Cash Flows from Operating Activities:		
Receipts from Customers and Users	$ 3,898,731.77	$ 4,046,462.54
Receipts for Connection Fees	111,303.34	101,555.13
Other Operating Receipts	154,730.53	157,384.24
Payments to Suppliers	(1,888,938.63)	(1,522,877.19)
Payments to Employees	(1,278,924.61)	(1,178,912.02)
Net Cash Provided By Operating Activities	996,902.40	1,603,612.70
Cash Flows from Non-Capital Financing Activities		
Tower Rental Income	53,323.41	56,876.98
Payment to Township of Mantua	(179,951.00)	(173,224.00)
Miscellaneous Non-operating Income (Expenses)	(61,224.32)	131,845.73
Net Cash Provided By (Used In) Non-Capital Financing Activities	(187,851.91)	15,498.71
Cash Flows from Capital and Related Financing Activities:		
Principal Payments on Bonds	(180,000.00)	(175,000.00)
Principal Payments on NJEIT Loans	(113,940.05)	(115,602.03)
NJEIT Drawdowns	2,414,301.00	-
Acquisition of Capital Assets	(2,181,509.97)	(343,811.78)
Interest Payments on Debt	(97,467.50)	(105,467.50)
Net Cash Used In Capital and Related Financing Activities	(158,616.52)	(739,881.31)
Cash Flows from Investing Activities:		
Investment Income Received	32,919.05	4,479.13
Net Increase in Cash	683,353.02	883,709.23
Cash and Cash Equivalents, October 1	4,011,167.29	3,127,458.06
Cash and Cash Equivalents, September 30	$ 4,694,520.31	$ 4,011,167.29

(Continued)

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Statements of Cash Flows
For the Fiscal Years Ended September 30, 2018 and 2017

Reconciliation of Operating Income to Net Cash Provided by Operating Activities	2018	2017
Operating Income	$ 657,913.61	$ 495,820.29
Adjustments Not Affecting Cash		
Depreciation and Amortization of Capital Assets	388,226.39	660,104.94
Adjustment to Actuarial Pension Expense	11,776.00	59,451.00
Adjustment to Actuarial OPEB Expense	(21,448.10)	37,046.80
Changes in Assets and Liabilities		
(Increase) Decrease in Assets		
Accounts Receivable, Net	(10,178.97)	96,183.22
Inventory	(6,629.15)	(2,732.67)
Prepaid Expenses	(177.38)	(478.11)
Increase (Decrease) in Liabilities		
Accounts Payable and Accrued Expenses	(32,320.36)	212,049.79
Deferred Revenue	12,156.95	32,173.96
Developers' Deposits	(4,462.23)	6,968.75
Compensated Absences	2,045.64	7,024.73
Total Adjustments	338,988.79	1,107,792.41
Net Cash Provided by Operating Activities	$ 996,902.40	$ 1,603,612.70

Reconciliation of Cash and Cash Equivalents to the Statements of Net Position:

Unrestricted Current	$ 3,354,124.43	$ 2,683,812.66
Restricted Current	949,853.51	936,812.26
Restricted Noncurrent	390,542.37	390,542.37
Cash and Cash Equivalents, September 30	$ 4,694,520.31	$ 4,011,167.29

Noncash Capital and Related Financing Activities

In 2017, the Authority issued project notes to the NJEIT totalling $2,726,096.00 for new capital projects. No cash was received during the fiscal year 2017.

The accompanying Notes to Financial Statements are an integral part of this statement.

Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

The Mantua Township Municipal Utilities Authority (the "Authority") is a public body corporate and politic of the State of New Jersey and was originally created by an ordinance adopted on April 10, 1978 by the governing body of the Township of Mantua (the "Township"), pursuant to the Municipal Utilities Authority Law, R.S. 40:14B-1 et seq., of the State of New Jersey.

The Authority was created for the purpose of constructing, maintaining and operating water supply and distribution and sewerage collection. A Sanitary Sewage Collection System was constructed in 1978 to serve the Sewell area of the Township. This system was connected to the treatment facilities of the Gloucester County Utility Authority pursuant to the terms of the two treatment agreements dated April 2, 1974 and December 6, 1977. During the late 1970's, the Authority undertook a project to acquire five private utility companies which was completed on September 30, 1980.

The Authority currently provides water treatment and distribution services along with sewerage collection services to approximately 75 percent of the Township's residences and businesses.

Component Unit

In evaluating how to define the Authority for financial reporting purposes, management has considered all potential component units. The decision to include any potential component units in the financial reporting entity was made by applying the criteria set forth in GASB Statements No. 14, *The Financial Reporting Entity*, as amended by GASB Statement No. 39, *Determining Whether Certain Organizations are Component Units*, and GASB Statement No. 61, *The Financial Reporting Entity: Omnibus - an amendment of GASB Statements No. 14 and No. 34* and GASB Statement No. 80, *Blending Requirements for Certain Component Units – an amendment of GASB Statement No. 14* . Blended component units, although legally separate entities, are in-substance part of the government's operations. Each discretely presented component unit would be or is reported in a separate column in the government-wide financial statements to emphasize that it is legally separate from the government.

The basic-but not the only-criterion for including a potential component unit within the reporting entity is the governing body's ability to exercise oversight responsibility. The most significant manifestation of this ability is financial interdependency. Other manifestations of the ability to exercise oversight responsibility include, but are not limited to, the selection of governing authority, the designation of management, the ability to significantly influence operations, and accountability for fiscal matters. A second criterion used in evaluating potential component units is the scope of public service. Application of this criterion involves considering whether the activity benefits the government and / or its citizens.

A third criterion used to evaluate potential component units for inclusion or exclusion from the reporting entity is the existence of special financing relationships, regardless of whether the government is able to exercise oversight responsibilities. Finally, the nature and significance of a potential component unit to the primary government could warrant its inclusion within the reporting entity.

Based upon the application of these criteria, the Authority has no component units and is a component unit of the Township of Mantua. These financial statements would be either blended or discreetly presented as a part of the Township's financial statements if the Township reported using generally accepted accounting principles applicable to governmental entities.

Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Basis of Presentation

The financial statements of the Authority have been prepared in accordance with accounting principles generally accepted in the United States of America applicable to enterprise funds of State and Local Governments on a going concern basis. The focus of enterprise funds is the measurement of economic resources, that is, the determination of operating income, changes in net position (or cost recovery), financial position and cash flows. The Governmental Accounting Standards Board ("GASB") is the accepted standard setting body for establishing governmental accounting and financial reporting principles.

The Authority is a single enterprise fund and maintains its records on the accrual basis of accounting. Enterprise funds account for activities (i) that are financed with debt that is secured solely by a pledge of the net revenues from fees and charges of the activity; or (ii) that are required by law or regulations that the activity's cost of providing services, including capital cost (such as depreciation or debt service), be recovered with fees and charges, rather than with taxes or similar revenues; or (iii) that the pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs (such as depreciation or debt service). Under this method, revenues are recorded when earned and expenses are recorded when the related liability is incurred.

The transactions of the Authority are divided into two separate activities (water and sewer) within the enterprise fund type. Each activity is accounted for by providing a separate set of self-balancing accounts that comprise its assets, deferred outflows of resources, liabilities, deferred inflow of resources, net position, revenues and expenditures.

Basis of Accounting

Basis of accounting determines when transactions are recorded in the financial records and reported on the financial statements. Enterprise funds are accounted for using the accrual basis of accounting.

Revenues -- Exchange and Non-Exchange Transactions - Revenue resulting from exchange transactions, in which each party gives and receives essentially equal value, is recorded on the accrual basis when the exchange takes place. Water and sewer service charges are recognized as revenue when services are provided. Connection fees are collected in advance and, accordingly, the Authority defers these revenues until the municipality issues a release for certificate of occupancy and determines that water distribution and sewage collection services are being provided to the properties.

Non-exchange transactions, in which the Authority receives value without directly giving equal value in return, include grants, contributed capital, and donations. Revenue from grants, contributed capital, and donations is recognized in the fiscal year in which all eligibility requirements have been satisfied. Eligibility requirements include timing requirements, which specify the fiscal year when the resources are required to be used or the fiscal year when use is first permitted, matching requirements, in which the Authority must provide local resources to be used for a specified purpose, and expenditure requirements, in which the resources are provided to the Authority on a reimbursement basis.

Expenses - On the accrual basis of accounting, expenses are recognized at the time they are incurred.

Budgets and Budgetary Accounting

The Authority must adopt an annual budget in accordance with N.J.A.C. 5:31-2. N.J.A.C. 5:31-2 requires the governing body to introduce the annual Authority budget at least 60 days prior to the end of the current fiscal year and to adopt not later than the beginning of the Authority's fiscal year. The governing body may amend the budget at any point during the fiscal year. The budget is adopted on the accrual basis of accounting with provisions for cash payments for bond principal. Depreciation expense, bond discounts and premiums, deferred loss on defeasance, and the annual required contribution for the Authority's Other Postemployment Benefits (OPEB) Plan are not included in the budget appropriations.

Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Budgets and Budgetary Accounting (Continued)

The legal level of budgetary control is established at the detail shown on the Statements of Revenues, Expenses and Changes in Net Position. All budget transfers and amendments to those accounts must be approved by resolution of the Authority as required by the Local Finance Board. Management may transfer among supplementary line items as long as the legal level line items are not affected. There are no statutory requirements that budgetary line items not be over-expended. The Authority did not adopt an amended budget resolution during the fiscal year.

The Authority records encumbrances. An encumbrance represents a commitment related to unperformed contracts for goods or services. The issuance of a purchase order or the signing of a contract would create an encumbrance. The encumbrance does not represent an expenditure for the period, only a commitment to expend resources. At fiscal year-end, the accounting records are adjusted to record only expenses in accordance with generally accepted accounting principles.

Cash, Cash Equivalents and Investments

Cash and cash equivalents include petty cash, change funds and cash in banks, and all highly liquid investments with a maturity of three months or less at the time of purchase and, except for money market funds, are stated at cost plus accrued interest. Such is the definition of cash and cash equivalents used in the statement of cash flows. U.S. treasury and agency obligations and certificates of deposit with maturities of one year or less when purchased are stated at cost. Money market funds are stated at fair value.

New Jersey governmental units are required by N.J.S.A. 40A:5-14 to deposit public funds in a bank or trust company having its place of business in the State of New Jersey and organized under the laws of the United States or of the State of New Jersey or in the New Jersey Cash Management Fund. N.J.S.A. 40A:5-15.1 provides a list of investments which may be purchased by New Jersey municipal units. These permissible investments generally include bonds or other obligations of the United States of America or obligations guaranteed by the United States of America, government money market mutual funds, any obligation that a federal agency or a federal instrumentality has issued in accordance with an act of Congress, bonds or other obligations of the local unit or bonds or other obligations of school district of which the local unit is a part or within which the school district is located, bonds or other obligations approved by the Division of Local Government Services in the Department of Community Affairs for investment by local units, local government investment pools, deposits with the State of New Jersey Cash Management Fund, and agreements for the purchase of fully collateralized securities with certain provisions. In addition, other State statutes permit investments in obligations issued by local authorities and other state agencies. The Authority has no investment policy that would further limit its investment choices.

N.J.S.A. 17:9-41 et seq. establishes the requirements for the security of deposits of governmental units. The statute requires that no governmental unit shall deposit public funds in a public depository unless such funds are secured in accordance with the Governmental Unit Deposit Protection Act ("GUDPA"), a multiple financial institutional collateral pool, which was enacted in 1970 to protect governmental units from a loss of funds on deposit with a failed banking institution in New Jersey. Public depositories include State or federally chartered banks, savings banks or associations located in or having a branch office in the State of New Jersey, the deposits of which are federally insured. All public depositories must pledge collateral, having a market value at least equal to five percent of the average daily balance of collected public funds, to secure the deposits of Governmental Units. If a public depository fails, the collateral it has pledged, plus the collateral of all other public depositories, is available to pay the amount of their deposits to the governmental units.

Additionally, the Authority has adopted a cash management plan which requires it to deposit public funds in public depositories protected from loss under the provisions of the Governmental Unit Deposit Protection Act. In lieu of designating a depository, the cash management plan may provide that the local unit make deposits with the State of New Jersey Cash Management Fund.

Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Inventory

Inventory consists of supplies at a level that is maintained to allow ongoing maintenance and repairs. Inventory is stated at cost and determined on a first-in, first-out basis.

Prepaid Expenses

Prepaid expenses recorded on the financial statements represent payments made to vendors for services that will benefit periods beyond the fiscal year end.

Capital Assets

Capital assets primarily consist of expenditures to acquire, construct, place in operation and improve the facilities of the Authority and are stated at cost.

Costs incurred during the construction of assets are recorded as construction in progress. In the year that the project is completed, these costs are transferred to Utility Plant In Service (Net of Accumulated Depreciation). Interest costs incurred during construction are not capitalized into the cost of the asset.

Expenditures are capitalized when they meet the following requirements:

1) Cost of $5,000 or more
2) Useful life of more than one year
3) Asset is not affected by consumption

Depreciation

Depreciation is provided using the straight-line method over the following estimated useful life of the assets:

	Years
Buildings	40
Major Moveable Equipment	5-20
Vehicles	5-15
Infrastructure	25-40

A full year of depreciation is taken in the year of acquisition.

Utility Plant Acquisition Adjustment

The Authority accounts for the acquisition of existing operating utilities under the purchase method of accounting. The excess of the purchase price over the book value, original cost less depreciation, is recorded as utility plant acquisition adjustments and is amortized at an annual rate of 2.5%.

Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Deferred Outflows and Deferred Inflows of Resources

The statement of net position reports separate sections for deferred outflows of resources and deferred inflows of resources. Deferred outflows of resources, reported after total assets, represents a reduction of net position that applies to a future period(s) and will be recognized as an outflow of resources (expense) at that time. Deferred inflows of resources, reported after total liabilities, represents an acquisition of net position that applies to a future period(s) and will be recognized as an inflow of resources (revenue) at that time.

Transactions are classified as deferred outflows of resources and deferred inflows of resources only when specifically prescribed by the Governmental Accounting Standards Board (GASB) standards. The Authority is required to report the following as deferred outflows of resources and deferred inflows of resources: connection fee funds received prior to providing water and sewer services, defined benefit pension plans, and postemployment benefit plans.

Bond Discounts / Bond Premiums

Bond discounts / bond premiums arising from the issuance of long-term debt (bonds) are amortized over the life of the bonds, in a systematic and rational method, from the issue date to maturity as a component of interest expense. Bond discounts / bond premiums are presented as an adjustment of the face amount on the bonds.

Compensated Absences

Compensated absences are those absences for which employees will be paid, such as vacation, sick leave, and sabbatical leave. A liability for compensated absences that are attributable to services already rendered, and that are not contingent on a specific event that is outside the control of the Authority and its employees, is accrued as the employees earn the rights to the benefits. Compensated absences that relate to future services, or that are contingent on a specific event that is outside the control of the Authority and its employees, are accounted for in the period in which such services are rendered or in which such events take place.

Unearned Revenue

Unearned revenue arises when assets are recognized before revenue recognition criteria have been satisfied and are recorded as a liability until the revenue is both measurable and the Authority is eligible to realize the revenue.

Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Public Employees' Retirement System (“PERS”) and additions to/deductions from PERS’s fiduciary net position have been determined on the same basis as they are reported by the plans. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Net Position

In accordance with the provisions of GASB Statement No. 34 ("Statement 34") of the Governmental Accounting Standards Board "*Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments*", the Authority has classified its net position into three components – net investment in capital assets; restricted; and unrestricted. These classifications are defined as follows:

Net Investment in Capital Assets – This component of net position consists of capital assets, net of accumulated depreciation, reduced, by the outstanding balances of any bonds, notes or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows 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 year-end, the portion of the debt attributable to the unspent proceeds is not 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 as the unspent amount.

Restricted – Net position is reported as restricted when there are limitations imposed on their use either through the enabling legislation adopted by the Authority or through external restrictions imposed by creditors, grantors or laws or regulations of other governments.

Unrestricted – This component of net position consists of net position that does not meet the definition of "restricted" or "net investment in capital assets." This component includes net position that may be allocated for specific purposes by the Board.

Income Taxes

The Authority operates as defined by the Internal Revenue Code Section 115 and appropriately is exempt from income taxes under Section 115.

Operating and Non-Operating Revenues and Expenses

Operating revenues include all revenues derived from facility charges (i.e., sewer and water usage and connection fees which represent the charge to new users for connecting to the systems) and certain other revenue sources. Non-operating revenues principally consist of tower rental income and investment income (interest income earned on various interest-bearing accounts and on investments in debt securities and increases/decreases in the fair value of investments).

Operating expenses include expenses associated with the operation, maintenance and repair of the water and sewer systems and general administrative expenses. Non-operating expenses principally include expenses attributable to the Authority's debt-related expenses (interest expense and amortization) and payment of the Authority's budgeted surplus to the Township.

Accounting Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates.

Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Recently Issued and Adopted Accounting Pronouncements

For the fiscal year ended September 30, 2018, the Authority adopted Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. The cumulative effect of adopting this Statement totaled $4,000,459.06, and was recognized as a cumulative effect of change in accounting principles in the Authority's current year financial statements.

Also, the Authority adopted GASB Statement No. 81, *Irrevocable Split-Interest Agreements*. This Statement improves accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. The adoption of this Statement had no impact on the Authority's financial statements.

Additionally, the Authority adopted Statement No. 85, *Omnibus 2017.* The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. This Statement addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits [OPEB]). The adoption of this Statement had no impact on the Authority's financial statements.

Lastly, the Authority adopted Statement No. 86, *Certain Debt Extinguishment Issues.* The objective of this Statement 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 acquired with only existing resources—resources other than the proceeds of refunding debt—are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. The adoption of this Statement had no impact on the Authority's financial statements.

Recently Issued Accounting Pronouncements

The GASB has issued the following Statements which will become effective in future fiscal years as shown below:

Statement No. 83, *Certain Asset Retirement Obligations*. This Statement addresses accounting and financial reporting for certain asset retirement obligations (AROs). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets should recognize a liability based on the guidance in this Statement. The Statement will become effective for the Authority in the fiscal year ending September 30, 2019. Management does not expect this Statement will have an impact on the financial statements.

Statement No. 84, *Fiduciary Activities*. This Statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. The Statement will become effective for the Authority in the fiscal year ending September 30, 2019. Management does not expect this Statement will have an impact on the financial statements.

Note 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Recently Issued Accounting Pronouncements (Continued)

Statement No. 87, *Leases*. The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. 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. The Statement will become effective for the Authority in the fiscal year ending September 30, 2020. Management has not yet determined the impact of this Statement on the financial statements.

Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. The objective of this Statement is to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. The Statement will become effective for the Authority in the fiscal year ending September 30, 2019. Management has not yet determined the impact of this Statement on the financial statements.

Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period.* The objective of this Statement is 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. The Statement will become effective for the Authority in the fiscal year ending September 30, 2020. Management has not yet determined the impact of this Statement on the financial statements.

Statement No. 90, *Major Equity Interests.* The objective of this Statement is to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. The Statement will become effective for the Authority in the fiscal year ending September 30, 2019. Management has not yet determined the impact of this Statement on the financial statements.

Note 2: STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY

Compliance with Finance Related Legal and Contractual Provisions
Management of the Authority is unaware of any material violations of finance related legal and contractual provisions.

General Bond Resolution
The Authority is subject to the provisions and restrictions of the General Bond Resolution adopted June 17, 1986 and Supplemental Resolutions adopted April 11 and May 5, 1991, October 15 and November 12, 1996, September 15 and October 1, 1998, March 20 and March 28, 2001 and August 20, 2002 (collectively the "Bond Resolution"). A summary of the activities of each account created by the Bond Resolution is covered below.

Revenue - All annual charges, all services charges, and all fees, rents and charges and other income collected by the Authority related to the ownership, operation, use or services of the systems, and all investment income from the Revenue and General Funds is required to be deposited into this account. On a monthly basis, the Trustee is required to make payments into the other accounts to satisfy bond resolution requirements.

Operating - The balance on deposit must be equal to at least 25% of the annual appropriation for operating expenses in effect for three months subsequent to the year-end.

Bond Service - An amount is required to be maintained in the account sufficient to provide for the accrual of interest and principal which is due and payable on the next installment date.

Bond Reserve - Amount is required to be maintained in the account equal to the largest annual principal and interest payments due on outstanding bonds in any future year.

General Account - All excess funds of the Authority are recorded in the General Account. If the Authority is not in default in the payment of bond principal or interest and all fund requirements are satisfied, the Authority may use the excess funds for any lawful purpose.

The Bond Resolution also established certain other accounts, including a Rebate Account and a Subordinated Indebtedness Account, but these are not maintained due to their inapplicability. At September 30, 2018, there are sufficient monies on deposit with the Trustee in total for all of the above accounts to meet the requirements of the Bond Resolution.

Note 2: STEWARDSHIP, COMPLIANCE, AND ACCOUNTABILITY (CONTINUED)

General Bond Resolution (Continued)

Debt Service Coverage

Although the 1988 Bonds have been subsequently refunded, certain provisions of the 1988 Bond Resolution are still in effect. Section 609(B) of the 1988 Bond Resolution requires certain ratios of Net Revenues to Debt Service. As of September 30, 2018, the Authority was in compliance with this covenant which is calculated as follows:

Revenues (accrual basis):		
Utility Service Charges		$3,950,107.13
Other Operating Revenues		154,730.53
Connection Fees		57,950.00
Tower Rental Income		53,323.41
Investment Income		32,919.05
Net Position Utilized		161,361.00
		4,410,391.12
Operating Expenses (net of depreciation, accrual basis)		3,116,647.66
Net Revenues		1,293,743.46
Less: 110% of Debt Service		
Debt Service	$ 390,542.37	
	X110%	429,596.61
Excess of Revenue		$ 864,146.85

Debt Service Agreements

In conjunction with the aforementioned Bond Resolution, the Authority has entered into a service agreement with the Township. The Township has agreed to advance to the Authority sufficient monies to eliminate any deficiency in the Authority's revenues required for its operation and administrative expenses, including certain debt service requirements, and to meet certain coverage requirements. Any monies advanced in accordance with this agreement would be repaid if the Authority can make such payments from its excess of revenue over expenses. The Authority has not had the need to request any such advances from the Township.

Note 3: DETAIL NOTES - ASSETS

Cash and Cash Equivalents

Custodial Credit Risk Related to Deposits - Custodial credit risk is the risk that, in the event of a bank failure, the Authority's deposits might not be recovered. Although the Authority does not have a formal policy regarding custodial credit risk, N.J.S.A. 17:9-41 et seq. requires that governmental units shall deposit public funds in public depositories protected from loss under the provisions of the Governmental Unit Deposit Protection Act (GUDPA). Under the Act, the first $250,000.00 of governmental deposits in each insured depository is protected by the Federal Deposit Insurance Corporation (FDIC). Public funds owned by the Authority in excess of FDIC insured amounts are protected by GUDPA. However, GUDPA does not protect intermingled trust funds such as salary withholdings or funds that may pass to the Authority relative to the happening of a future condition. If the Authority had any such funds, they would be shown as Uninsured and Uncollateralized in the schedule below.

As of September 30, 2018, the Authority's bank balances of $919,646.75 were exposed to custodial credit risk as follows:

Insured	$ 250,000.00
Insured and Collateralized with Securities Held by Pledging Financial Institutions	669,646.75
Total	$ 919,646.75

As of September 30, 2018, the Authority has $3,879,098.27 of investments in treasury obligations money market funds (classified as cash and cash equivalents on the statement of net position) which are held in the name of the Trustee. The money market funds are rated Aaa-mf and AAAm.

Service Fees

The following is a three-year comparison of service charge billings and collections for all types of accounts maintained by the Authority:

Fiscal Year	Beginning Balance	Billings	Total Collections	Percentage Of Collections
2018	$370,801.06	$3,999,511.02	$3,991,021.19	91.32%
2017	387,901.45	4,009,520.50	4,112,780.72	93.53%
2016	431,293.68	4,171,742.97	4,210,826.39	91.48%

Accounts Receivable

The Authority's receivables as of September 30, 2018 and 2017 are summarized as follows:

	2018	2017
Consumer Accounts Receivable	$ 346,306.94	$ 340,173.14
Accrued Water Service Revenue	206,128.03	203,529.52
County Connection Accounts Receivable	3,518.00	3,518.00
Authority Connection Accounts Receivable	3,246.66	1,800.00
Other Accounts Receivable	63,916.66	63,916.66
	$ 623,116.29	$ 0.00

Note 3: DETAIL NOTES - ASSETS (CONTINUED)

Capital Assets

During the fiscal years ended September 30, 2018 and 2017 the following changes in capital assets occurred:

	Balance October 1, 2017	Additions	Deletions	Balance September 30, 2018
Capital Assets not being depreciated				
Land and Land Rights	$ 8,325.00			$ 8,325.00
Construction in Progress	596,821.51	$ 2,065,476.97	$ (1,215,726.81)	1,446,571.67
Total Capital Assets Not Being Depreciated	605,146.51	2,065,476.97	(1,215,726.81)	1,454,896.67
Capital Assets Being Depreciated				
Utility Plant in Service				
Intangible Plant	5,976.00			5,976.00
Collecting System	9,265,054.81			9,265,054.81
Pumping System	751,288.86	1,215,726.81		1,967,015.67
Source of Supply Plant	1,280,051.97			1,280,051.97
Water Treatment Plant	1,086,823.32			1,086,823.32
Transmission and Distribution Plant	9,023,536.86			9,023,536.86
General Plant	271,482.40			271,482.40
Machinery and Equipment	2,137,562.76	116,033.00		2,253,595.76
	23,821,776.98	1,331,759.81	---	25,153,536.79
Less: Accumulated Depreciation	13,374,134.63	332,034.97		13,706,169.60
Utility Plant in Service, Net	10,447,642.35	999,724.84	---	11,455,692.19
Utility Plant Acquisition Costs	2,247,656.72			2,247,656.72
Less: Accumulated Amortization	2,078,634.16	56,191.42		2,134,825.58
Utility Plant Acquisition Costs, Net	169,022.56	(56,191.42)	---	112,831.14
Utility Plant, Net	10,616,664.91	943,533.42	---	11,560,198.33
Capital Assets, Net	$11,221,811.42	$ 3,009,010.39	$ (1,215,726.81)	$13,015,095.00

Note 3: DETAIL NOTES - ASSETS (CONTINUED)

Capital Assets (Continued)

	Balance October 01, 2016	Additions	Deletions	Balance September 30, 2017
Capital Assets not being depreciated				
Land and Land Rights	$ 8,325.00			$ 8,325.00
Construction in Progress	270,563.48	$ 326,258.03		596,821.51
Total Capital Assets Not Being Depreciated	278,888.48	326,528.03	---	605,146.51
Capital Assets Being Depreciated				
Utility Plant in Service				
Intangible Plant	5,976.00			5,976.00
Collecting System	9,265,054.81			9,265,054.81
Pumping System	744,869.86	6,419		751,288.86
Source of Supply Plant	1,280,051.97			1,280,051.97
Water Treatment Plant	1,086,823.32			1,086,823.32
Transmission and Distribution Plant	9,012,402.11	11,134.75		9,023,536.86
General Plant	271,482.40			271,482.40
Machinery and Equipment	2,137,562.76			2,137,562.76
	23,804,223.23	17,553.75	---	23,821,776.98
Less: Accumulated Depreciation	12,770,221.11	603,913.52		13,374,134.63
Utility Plant in Service, Net	11,034,002.12	(586,359.77)	---	10,447,642.35
Utility Plant Acquisition Costs	2,247,656.72			2,247,656.72
Less: Accumulated Amortization	2,022,442.74	56,191.42		2,078,634.16
Utility Plant Acquisition Costs, Net	225,213.98	(56,191.42)	---	169,022.56
Utility Plant, Net	11,259,216.10	(642,551.19)	---	10,616,664.91
Capital Assets, Net	$ 11,538,104.58	$ (316,293.16)	---	$11,221,811.42

Note 4: DETAIL NOTES – DEFERRED OUTFLOWS OF RESOURCES

Deferred Loss on Refinancing

In 2016, the Authority used unspent loan proceeds to defease $765,000.00 of future loan principal payments to the New Jersey Environmental Infrastructure Trust (NJEIT) to which the Authority is a pooled loan participant. The refunding resulted in a difference between the reacquisition price and the net carrying amount of the old debt of $69,356.16. This difference, net of accumulated amortization of $22,673.17 and $13,908.37 in fiscal year 2018 and 2017, respectively, is reported in the accompanying financial statements at September 30, 2018 and 2017, respectively, as a deferred outflow of resources. Amortization is being charged to operations as a component of interest expense over the life of the refunding bonds using the effective interest method. The refunding resulted in a present value economic gain of $129,615.44. See note 5 for additional information on the debt refunding.

Note 5: DETAIL NOTES - LIABILITIES

Compensated Absences

Authority employees may accumulate unused sick days with no restrictions. Employees who have at least 5 years of full-time employment with the Authority are compensated for accumulated sick leave upon retirement at 75% of the overall accrual which should not exceed 365 days, paid in equal installments over 4 years post-retirement. Up to 5 vacation days, or as approved by the Board, not used during the year may be carried forward for one year and lost after that year has passed if unused. Upon separation from the Authority, the employee will be paid for all accrued vacation time at their then current hourly rate, prorated based on their termination of employment. The accrued liability for accumulated sick leave and vacation time is estimated at $136,594.35 and $134,548.71 for the fiscal years ended September 30, 2018 and 2017, respectively.

Pension Plan

A substantial number of Authority employees participate in the Public Employees' Retirement System ("PERS"), a defined benefit pension plan, which is administered by the New Jersey Division of Pensions and Benefits ("the Division"). This plan has a Board of Trustees that is primarily responsible for its administration. The Division issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained by writing to:

State of New Jersey
Division of Pensions and Benefits
P.O. Box 295
Trenton, New Jersey 08625-0295
http://www.state.nj.us/treasury/pensions/financial-reports.shtml

Plan Descriptions

The Public Employees' Retirement System is a cost-sharing multiple-employer defined benefit pension plan which was established as of January 1, 1955, under the provisions of N.J.S.A. 43:15A. The PERS' designated purpose is to provide retirement, death, disability and medical benefits to certain qualified members. Membership in the PERS is mandatory for substantially all full-time employees of the Authority, provided the employee is not required to be a member of another state-administered retirement system or other state pensions fund or local jurisdiction's pension fund. The PERS' Board of Trustees is primarily responsible for the administration of the PERS.

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Pension Plans (Continued)

Vesting and Benefit Provisions

The vesting and benefit provisions are set by N.J.S.A. 43:15A and 43:3B. The PERS provides retirement, death and disability benefits. All benefits vest after 10 years of service, except for medical benefits, which vest after 25 years of service or under the disability provisions of the PERS.

The following represents the membership tiers for PERS:

Tier	Definition
1	Members who were enrolled prior to July 1, 2007
2	Members who were eligible to enroll on or after July 1, 2007 and prior to November 2, 2008
3	Members who were eligible to enroll on or after November 2, 2008 and prior to May 21, 2010
4	Members who were eligible to enroll after May 21, 2010 and prior to June 28, 2011
5	Members who were eligible to enroll on or after June 28, 2011

Service retirement benefits of 1/55th of final average salary for each year of service credit is available to tiers 1 and 2 members upon reaching age 60 and to tier 3 members upon reaching age 62. Service retirement benefits of 1/60th of final average salary for each year of service credit is available to tier 4 members upon reaching age 62 and tier 5 members upon reaching age 65. Early retirement benefits are available to tiers 1 and 2 members before reaching age 60, tiers 3 and 4 before age 62 with 25 or more years of service credit and tier 5 with 30 or more years of service credit before age 65. Benefits are reduced by a fraction of a percent for each month that a member retires prior to the age at which a member can receive full early retirement benefits in accordance with their respective tier. Tier 1 members can receive an unreduced benefit from age 55 to age 60 if they have at least 25 years of service. Deferred retirement is available to members who have at least 10 years of service credit and have not reached the service retirement age for the respective tier.

Contributions

The contribution policy is set by N.J.S.A. 43:15A and requires contributions by active members and contributing employers. Members contribute at a uniform rate. Pursuant to the provisions of Chapter 78, P.L. 2011, the active member contribution rate increased from 5.5% of annual compensation to 6.5% plus an additional 1% phased-in over seven years beginning in July 2012. The member contribution rate was 7.34% in State fiscal year 2018 and 7.20% in State fiscal year 2017. The phase-in of the additional incremental member contribution rate takes place in July of each subsequent State fiscal year. The rate for members who are eligible for the Prosecutors Part of PERS (Chapter 366, P.L. 2001) was 10% in State fiscal year 2018. Employers' contribution are based on an actuarially determined amount, which includes the normal cost and unfunded accrued liability.

The Authority’s contractually required contribution rates for the fiscal years ended September 30, 2018 and 2017 was 13.17% and 12.83% of the Authority’s covered payroll. These amounts were actuarially determined as an amount that, when combined with employee contributions, are expected to finance the costs of benefits earned by employees during the fiscal year, including an additional amount to finance any unfunded accrued liability.

Based on the most recent PERS measurement date of June 30, 2018, the Authority’s contractually required contribution to the pension plan for the fiscal year ended September 30, 2018 was $84,146.00, and was paid by April 1, 2019. Based on the PERS measurement date of June 30, 2017, the Authority’s contractually required contribution to the pension plan for the fiscal year ended September 30, 2017 was $77,001.00, which was paid by April 1, 2018. Employee contributions to the Plan during the fiscal years ended September 30, 2018 and 2017 were $48,340.50 and $43,781.40, respectively.

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Pension Plans (Continued)

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

At September 30, 2018, the Authority's proportionate share of the net pension liability was $1,665,659.00. The net pension liability was measured as of June 30, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2017. The total pension liability was calculated through the use of updated procedures to roll forward from the actuarial valuation date to the measurement date of June 30, 2018. The Authority's proportion of the net pension liability was based on a projection of the Authority's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. For the June 30, 2018 measurement date, the Authority's proportion was 0.0084596313%, which was an increase of 0.0001477180% from its proportion measured as of June 30, 2017.

At September 30, 2017, the Authority's proportionate share of the net pension liability was $1,934,881.00. The net pension liability was measured as of June 30, 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2016. The total pension liability was calculated through the use of updated procedures to roll forward from the actuarial valuation date to the measurement date of June 30, 2017. The Authority's proportion of the net pension liability was based on a projection of the Authority's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. For the June 30, 2017 measurement date, the Authority's proportion was 0.0083119133%, which was an increase of 0.0003612002% from its proportion measured as of June 30, 2016.

For the fiscal years ended September 30, 2018 and 2017, the Authority recognized pension expense of $88,776.00 and $130,082.00, respectively. These amounts were based on the plan's June 30, 2018 and 2017 measurement dates, respectively.

Deferred Outflows of Resources and Deferred Inflows of Resources - At September 30, 2018 and 2017, the Authority had deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	September 30, 2018		September 30, 2017	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 31,764.00	$ 8,589.00	$ 45,560.00	
Change of assumptions	274,473.00	532,589.00	389,812.00	$ 388,383.00
Net difference between projected and actual earnings on pension plan investments		15,624.00	13,175.00	
Changes in proportion and differences between Authority contributions and proportionate share of contributions	77,406.00	50,516.00	64,378.00	74,364.00
Authority contributions subsequent to the measurement date	21,037.00		19,250.00	
	$ 404,680.00	$ 607,318.00	$ 532,175.00	$ 462,747.00

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Pension Plans (Continued)

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

Deferred Outflows of Resources and Deferred Inflows of Resources (Continued) –

The deferred outflows of resources related to pensions totaling $21,037.00 and $19,250.00 will be included as a reduction of the net pension liability in the fiscal years ended September 31, 2019 and 2018, respectively. This amount is based on an estimated April 1, 2020 and April 1, 2019 contractually required contribution, prorated from the pension plans measurement date of June 30, 2018 and June 30, 2017 to the Authority's fiscal year end of September 30, 2018 and 2017.

The Authority will amortize the other deferred outflows of resources and deferred inflows of resources related to PERS over the following number of years:

	Deferred Outflow of Resources	Deferred Inflows of Resources
Differences between expected and actual experience		
Year of pension plan deferral:		
June 30, 2014	-	-
June 30, 2015	5.72	-
June 30, 2016	5.57	-
June 30, 2017	5.48	-
June 30, 2018	-	5.63
Changes of assumptions		
Year of pension plan deferral:		
June 30, 2014	6.44	-
June 30, 2015	5.72	-
June 30, 2016	5.57	-
June 30, 2017	-	5.48
June 30, 2018	-	5.63
Net difference between projected and actual earnings on pension plan investments		
Year of pension plan deferral:		
June 30, 2014	-	5.00
June 30, 2015	5.00	-
June 30, 2016	5.00	-
June 30, 2017	-	5.00
June 30, 2018	-	5.00
Changes in proportion and differences between Authority contributions and proportionate share of contributions		
Year of pension plan deferral:		
June 30, 2014	6.44	6.44
June 30, 2015	5.72	5.72
June 30, 2016	5.57	5.57
June 30, 2017	5.48	5.48
June 30, 2018	5.63	5.63

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Pension Plans (Continued)

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

Deferred Outflows of Resources and Deferred Inflows of Resources (Continued) - Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Plan Year Ended September 30,	PERS
2019	$ 7,998.00
2020	(15,767.00)
2021	(101,101.00)
2022	(86,675.00)
2023	(28,130.00)
	$ (223,675.00)

Actuarial Assumptions

The net pension liability was measured as of June 30, 2018 and 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2017 and 2016. The total pension liability was calculated through the use of updated procedures to roll forward from the actuarial valuation date to the measurement date of June 30, 2018 and 2017. This actuarial valuation used the following actuarial assumptions, applied to all periods included in the measurement:

	Measurement Date June 30, 2018 and 2017
Inflation	2.25%
Salary increases:	
Through 2026	1.65% - 4.15% Based on age
Thereafter	2.65% - 5.15% Based on age
Investment rate of return	7.00%
Period of actuarial experience Study upon which actuarial assumptions were based	July 1, 2011 – June 30, 2014

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Pension Plans (Continued)

Actuarial Assumptions (Continued)

For the June 30, 2018 measurement date, preretirement mortality rates were based on the RP-2000 Employee Preretirement Mortality Table for male and female active participants. For State employees, mortality tables are set back 4 years for males and females. For local employees, mortality tables are set back 2 years for males and 7 years for females. In addition, the tables provide for future improvements in mortality from the base year of 2013 using a generational approach based on the Conduent modified 2014 projection scale. Postretirement mortality rates were based on the RP-2000 Combined Healthy Male and Female Mortality Tables (set back 1 year for males and females) for service retirements and beneficiaries of former members. In addition, the tables for service retirements and beneficiaries of former members provide for future improvements in mortality from 2012 to 2013 using Projection Scale AA and using a generational approach based on the Conduent modified 2014 projection scale thereafter. Disability retirement rates used to value disabled retirees were based on the RP-2000 Disabled Mortality Table (set back 3 years for males and set forward 1 year for females).

For the June 30, 2017 measurement date, preretirement mortality rates were based on the RP-2000 Employee Preretirement Mortality Table for male and female active participants. For State employees, mortality tables are set back 4 years for males and females. For local employees, mortality tables are set back 2 years for males and 7 years for females. In addition, the tables provide for future improvements in mortality from the base year of 2013 using a generational approach based on the plan actuary's modified MP-2014 projection scale. Post-retirement mortality rates were based on the RP-2000 Combined Healthy Male and Female Mortality Tables (set back 1 year for males and females) for service retirements and beneficiaries of former members and a one-year static projection based on mortality improvement Scale AA. In addition, the tables for service retirements and beneficiaries of former members provide for future improvements in mortality from the base year of 2013 using a generational approach based on the plan actuary's modified MP-2014 projection scale. Disability retirement rates used to value disabled retirees were based on the RP-2000 Disabled Mortality Table (set back 3 years for males and set forward 1 year for females).

In accordance with State statute, the long-term expected rate of return on plan investments (7.00% at June 30, 2018 and 2017) is determined by the State Treasurer, after consultation with the Directors of the Division of Investments and Division of Pensions and Benefits, the board of trustees and the actuaries. The long-term expected rate of return was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension Plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic rates of return for each major asset class included in PERS' and PFRS' target asset allocation as of June 30, 2017 and 2016 are summarized in the table on the following page.

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Pension Plans (Continued)

Actuarial Assumptions (Continued)

	Measurement Date June 30, 2018 and 2017	
Asset Class	**Target Allocation**	**Long-Term Expected Real Rate of Return**
Risk Mitigation Strategies	5.00%	5.51%
Cash Equivalents	5.50%	1.00%
U.S. Treasuries	3.00%	1.87%
Investment Grade Credit	10.00%	3.78%
High Yield	2.50%	6.82%
Global Diversified Credit	5.00%	7.10%
Credit Oriented Hedge Funds	1.00%	6.60%
Debt Related Private Equity	2.00%	10.63%
Debt Related Real Estate	1.00%	6.60%
Private Real Estate	2.50%	11.83%
Equity Related Real Estate	6.25%	9.23%
U.S. Equity	30.00%	8.19%
Non-U.S. Developed Markets Equity	11.50%	9.00%
Emerging Markets Equity	6.50%	11.64%
Buyouts/Venture Capital	8.25%	13.08%
	100.00%	

Discount Rate - The discount rate used to measure the total pension liability at June 30, 2018 was 5.66%. The respective single blended discount rates were based on the long-term expected rate of return on pension Plan investments of 7.00%, and a municipal bond rate of 3.87% as of June 30, 2018, based on the Bond Buyer Go 20-Bond Municipal Bond Index which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The projection of cash flows used to determine the discount rates assumed that contributions from Plan members will be made at the current member contribution rates and that contributions from employers and the nonemployer contributing entity will be made based on the contribution rate in the most recent fiscal year. The State employer contributed 50% of the actuarially determined contributions and the local employers contributed 100% of their actuarially determined contributions. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make projected future benefit payments of current Plan members through 2046; therefore, the long-term expected rate of return on Plan investments was applied to projected benefit payments through 2046, and the municipal bond rate was applied to projected benefit payments after that date in determining the total pension liabilities.

Note 5: <u>DETAIL NOTES – LIABILITIES (CONTINUED)</u>

Pension Plans (Continued)

<u>Actuarial Assumptions (Continued)</u>

Discount Rate (Continued) - The discount rate used to measure the total pension liability at June 30, 2017 was 5.00%. The respective single blended discount rate was based on the long-term expected rate of return on pension plan investments of 7.00%, and a municipal bond rate of 3.58% as of June 30, 2017, based on the Bond Buyer Go 20-Bond Municipal Bond Index which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The projection of cash flows used to determine the discount rates assumed that contributions from plan members will be made at the current member contribution rates and that contributions from employers and the nonemployer contributing entity will be made based on the contribution rate in the most recent fiscal year. The State employer contributed 40% of the actuarially determined contributions and the local employers contributed 100% of their actuarially determined contributions. Based on those assumptions, the plan's fiduciary net position was projected to be available to make projected future benefit payments of current plan members through 2040. Therefore, the long-term expected rate of return on plan investments was applied to projected benefit payments through 2040, and the municipal bond rate was applied to projected benefit payments after that date in determining the total pension liabilities.

<u>Sensitivity of Authority's Proportionate Share of Net Pension Liability to Changes in the Discount Rate</u>

The following presents the Authority's proportionate share of the net pension liability at September 30, 2018, the plan's measurement date, calculated using a discount rate of 5.66%, as well as what the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rates used:

	1% Decrease (4.66%)	Current Discount Rate (5.66%)	1% Increase (6.66%)
Authority's proportionate share of the net pension liability	$ 2,094,375.00	$ 1,665,659.00	$ 1,305,994.00

The following presents the Authority's proportionate share of the net pension liability at September 30, 2017, the plan's measurement date, calculated using a discount rate of 5.00%, as well as what the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rates used:

	1% Decrease (4.00%)	Current Discount Rate (5.00%)	1% Increase (6.00%)
Authority's proportionate share of the net pension liability	$ 2,400,351.00	$ 1,934,881.00	$ 1,547,086.00

<u>Pension Plan Fiduciary Net Position</u>

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the respective fiduciary net position of the PERS and additions to/deductions from PERS' respective fiduciary net position have been determined on the same basis as they are reported by PERS. Accordingly, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value. For additional information about PERS, please refer to the Plan's Comprehensive Annual Financial Report (CAFR) which can be found at <u>https://www.nj.gov/treasury/pensions/financial-reports.shtml</u>.

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Postemployment Benefits Other Than Pensions (OPEB) - State Health Benefits Local Government Retired Employees Plan

General Information about the OPEB Plan

Plan Description and Benefits Provided - The Authority contributes to the State Health Benefits Local Government Retired Employees Plan (the Plan), which is a cost-sharing multiple-employer defined benefit other postemployment benefit (OPEB) plan. It covers employees of local government employers that have adopted a resolution to participate in the Plan. The plan meets the definition of an equivalent arrangement as defined in paragraph 4 of GASB Statement No. 75, *Accounting and Financial Reporting for the Postemployment Benefits Other Than Pensions* (GASB Statement No. 75); therefore, assets are accumulated to pay associated benefits. For additional information about the Plan, please refer to the State of New Jersey (the State), Division of Pensions and Benefits' (the Division) Comprehensive Annual Financial Report (CAFR), which can be found at https://www.state.nj.us/treasury/pensions/ financial-reports.shtml.

The Plan provides medical and prescription drug benefit coverage to retirees and their covered dependents of the employers. Under the provisions of Chapter 88, P.L. 1974 and Chapter 48, P.L. 1999, local government employers electing to provide postretirement medical coverage to their employees must file a resolution with the Division. Under Chapter 88, local employers elect to provide benefit coverage based on the eligibility rules and regulations promulgated by the State Health Benefits Commission. Chapter 48 allows local employers to establish their own age and service eligibility for employer paid health benefits coverage for retired employees. Under Chapter 48, the employer may assume the cost of postretirement medical coverage for employees and their dependents who: 1) retired on a disability pension; or 2) retired with 25 or more years of service credit in a State or locally administered retirement system and a period of service of up to 25 years with the employer at the time of retirement as established by the employer; or 3) retired and reached the age of 65 with 25 or more years of service credit in a State or locally administered retirement system and a period of service of up to 25 years with the employer at the time of retirement as established by the employer; or 4) retired and reached age 62 with at least 15 years of service with the employer. Further, the law provides that the employer paid obligations for retiree coverage may be determined by means of a collective negotiations agreement.

Contributions - The funding policy for the OPEB plan is pay-as-you-go; therefore, there is no prefunding of the liability. However, due to premium rates being set prior to each calendar year, there is a minimal amount of net position available to cover benefits in future years. Contributions to pay for the health benefit premiums of participating employees in the OPEB plan are collected from the State of New Jersey, participating local employers, and retired members.

Pursuant to Chapter 78, P.L. 2011, future retirees eligible for postretirement medical coverage who have less than 20 years of creditable service on June 28, 2011 will be required to pay a percentage of the cost of their health care coverage in retirement provided they retire with 25 or more years of pension service credit. The percentage of the premium for which the retiree will be responsible will be determined based on the retiree's annual retirement benefit and level of coverage.

The Authority was billed monthly by the Plan and for the fiscal years ended September 30, 2018 and 2017, the Authority paid $107,066.08 and $94,581.03, respectively. These amounts represent 16.75% and 15.76% of the Authority's covered payroll. Retiree contributions for the fiscal years ended September 30, 2018 and 2017 were not made available by the Plan.

Note 5: DETAIL NOTES – LIABILITIES (CONT'D)

Postemployment Benefits Other Than Pensions (OPEB) - State Health Benefits Local Government Retired Employees Plan (Cont'd)

OPEB Liability, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources

OPEB Liability - At September 30, 2018, the Authority's proportionate share of the net OPEB liability was $2,420,336.00.

The net OPEB liability was measured as of June 30, 2018, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of June 30, 2017, which was rolled forward to June 30, 2018.

The Authority's proportion of the net OPEB liability was based on the ratio of the plan members of an individual employer to the total members of the Plan during the measurement period July 1, 2017 through June 30, 2018. For the June 30, 2018 measurement date, the Authority's proportion was .015449% which was an increase of .000852% from its proportion measured as of the June 30, 2017 measurement date.

At September 30, 2017, the Authority's proportionate share of the net OPEB liability was $2,918,845.00. The net OPEB liability was measured as of June 30, 2017, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of June 30, 2016, which was rolled forward to June 30, 2017. The Authority's proportion of the net OPEB liability was based on the ratio of the plan members of an individual employer to the total members of the Plan during the measurement period July 1, 2016 through June 30, 2017. For the June 30, 2017 measurement date, the Authority's proportion was .014597% which was a decrease of .002256% from its proportion measured as of the June 30, 2016 measurement date.

OPEB Expense - At September 30, 2018, the Authority's proportionate share of the OPEB expense, calculated by the Plan as of the June 30, 2018 measurement date is $57,261.00. As previously mentioned, for the fiscal year ended September 30, 2018, the Authority made contributions to the Plan totaling $107,066.08.

At September 30, 2017, the Authority's proportionate share of the OPEB expense, calculated by the Plan as of the June 30, 2017 measurement date is $130,499.00. As previously mentioned, for the fiscal year ended September 30, 2017, the Authority made contributions to the Plan totaling $94,581.03.

Note 5: DETAIL NOTES – LIABILITIES (CONT'D)

Postemployment Benefits Other Than Pensions (OPEB) - State Health Benefits Local Government Retired Employees Plan (Cont'd)

OPEB Liability, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources (Cont'd)

Deferred Outflows of Resources and Deferred Inflows of Resources

At September 30, 2018 and 2017, the Authority had deferred outflows of resources and deferred inflows of resources related to the OPEB liability from the following sources:

	September 30, 2018 Measurement Date June 30, 2018		September 30, 2017 Measurement Date June 30, 2017	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	$ -	$ 491,415.00	$ -	$ -
Changes of Assumptions	-	613,950.00	-	323,967.00
Net Difference between Projected and Actual Earnings on OPEB Plan Investments	1,279.00	-	500.00	-
Changes in Proportion and Differences between Authority Contributions and Proportionate Share of Contributions	229,159.00	417,014.00	-	486,056.00
Authority Contributions Subsequent to the Measurement Date	33,723.04	-	31,101.94	-
	$ 264,161.04	$ 1,522,379.00	$ 31,601.94	$ 810,023.00

Note 5: DETAIL NOTES – LIABILITIES (CONT'D)

Postemployment Benefits Other Than Pensions (OPEB) - State Health Benefits Local Government Retired Employees Plan (Cont'd)

OPEB Liability, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources (Cont'd)

Deferred Outflows of Resources and Deferred Inflows of Resources (Cont'd)

The Authority reported $33,723.04 and $31,101.94 as deferred outflows of resources resulting from the Authority's contributions subsequent to the measurement date and will be included as a reduction of the Authority's net OPEB liability in the fiscal year ending September 30, 2019 and 2018, respectively. The Authority will amortize the other deferred outflow of resources and deferred inflows of resources related to the OPEB liability over the following number of years:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of Assumptions		
Year of OPEB Plan Deferral:		
June 30, 2017	-	8.04
June 30, 2018	-	8.14
Net Difference between Projected and Actual Earnings on OPEB Plan Investments		
Year of OPEB Plan Deferral:		
June 30, 2017	5.00	-
June 30, 2018	5.00	-
Changes in Proportion and Differences between Authority Contributions and Proportionate Share of Contributions		
Year of OPEB Plan Deferral:		
June 30, 2017	8.04	8.04
June 30, 2018	8.14	8.14

Other amounts included as deferred outflows of resources and deferred inflows of resources related to the OPEB liability will be recognized in future periods as follows:

Fiscal Year Ending Sep. 30,	
2019	$ (199,067.00)
2020	(199,067.00)
2021	(199,067.00)
2022	(199,202.00)
2023	(199,421.00)
Thereafter	(296,117.00)
	$ (1,291,941.00)

Note 5: DETAIL NOTES – LIABILITIES (CONT'D)

Postemployment Benefits Other Than Pensions (OPEB) - State Health Benefits Local Government Retired Employees Plan (Cont'd)

Actuarial Assumptions

The actuarial valuation at June 30, 2018 and 2017 used the following actuarial assumptions, applied to all periods in the measurement:

Inflation Rate	2.50%
Salary Increases *	
Through 2026	1.65% - 8.98%
Thereafter	2.65% - 9.98%

* Salary Increases are Based on the Defined Benefit Plan that the Member is Enrolled in and his or her Age.

Preretirement mortality rates were based on the RP-2006 Headcount-Weighted Healthy Employee Male/Female mortality table with fully generational mortality improvement projections from the central year using the MP-2017 scale. Postretirement mortality rates were based on the RP-2006 Headcount-Weighted Healthy Annuitant Male/Female mortality table with fully generational improvement projections from the central year using the MP-2017 scale. Disability mortality was based on the RP-2006 Headcount-Weighted Disabled Male/Female mortality table with fully generational improvement projections from the central year using the MP-2017 scale.

Certain actuarial assumptions used in the July 1, 2017 valuation were based on the results of the Public Employees' Retirement System (PERS) experience study. The PERS experience studies were prepared for the periods July 1, 2010 to June 30, 2013 and July 1, 2011 to June 30, 2014, respectively.

100% of active members are considered to participate in the Plan upon retirement.

All of the Plan's investments are in the State of New Jersey Cash Management Fund ("CMF"). The New Jersey Division of Investments manages the CMF, which is available on a voluntary basis for investment by State and certain non-State participants. The CMF is considered to be an investment trust fund as defined in GASB Statement No. 31, *Certain Investments and External Investment Pools.* The CMF invests in U.S. Government and Agency Obligations, Commercial Paper, Corporate Obligations and Certificates of Deposit. Units of ownership in the CMF may be purchased or redeemed on any given business day (excluding State holidays) are the unit cost of value of $1.00. Participant shares are valued on a fair value basis. The CMF pays interest to participants on a monthly basis.

Discount Rate - The discount rate used to measure the OPEB Liability at June 30, 2018 was 3.87%. This represents the municipal bond return rate as chosen by the State. The source is the Bond Buyer Go 20-Bond Municipal Bond Index, which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. As the long-term rate of return is less than the municipal bond rate, it is not considered in the calculation of the discount rate, rather the discount rate is set at the municipal bond rate.

Note 5: DETAIL NOTES – LIABILITIES (CONT'D)

Postemployment Benefits Other Than Pensions (OPEB) - State Health Benefits Local Government Retired Employees Plan (Cont'd)

Actuarial Assumptions (Cont'd)

Health Care Trend Assumptions - For pre-Medicare preferred provider organization (PPO) and health maintenance organization (HMO) medical benefits, the trend rate is initially 5.8% and decreases to a 5.0% long-term trend rate after eight years. For self-insured post-65 PPO and HMO medical benefits, the trend rate is 4.5%. For prescription drug benefits, the initial trend rate is 8.0% decreasing to a 5.0% long-term trend rate after seven years. The Medicare Advantage trend rate is 4.5% and will continue in all future years.

Sensitivity of the net OPEB Liability to Changes in the Discount Rate

The net OPEB liability as of June 30, 2018, the plans measurement date, for the Authority calculated using a discount rate of 3.87%, as well as using a discount rate that is 1% lower or 1% higher than the current rates used is as follows:

	September 30, 2018		
	1% Decrease (2.87%)	Current Discount Rate (3.87%)	1% Increase (4.87%)
Authority's Proportionate Share of The Net OPEB Liability	$ 2,839,694.00	$ 2,420,336.00	$ 2,085,364.00

The net OPEB liability as of June 30, 2017, the plans measurement date, for the Authority calculated using a discount rate of 3.58%, as well as using a discount rate that is 1% lower or 1% higher than the current rates used is as follows:

	September 30, 2017		
	1% Decrease (2.58%)	Current Discount Rate (3.58%)	1% Increase (4.58%)
Authority's Proportionate Share of The Net OPEB Liability	$ 3,442,865.00	$ 2,918,845.00	$ 2,503,044.00

Note 5: DETAIL NOTES – LIABILITIES (CONT'D)

Postemployment Benefits Other Than Pensions (OPEB) - State Health Benefits Local Government Retired Employees Plan (Cont'd)

Sensitivity of the net OPEB Liability to Changes in the Healthcare Cost Trend Rates

The Authority's proportionate share of the net OPEB Liability as of June 30, 2018, using a healthcare cost trend rates that are 1% lower or 1% higher than the current healthcare cost trend rate used is as follows:

	September 30, 2018		
	1% Decrease	Healthcare Cost Trend Rates	1% Increase
Authority's Proportionate Share of the Net OPEB Liability	$ 2,018,948.00	$ 2,420,336.00	$ 2,939,791.00

The Authority's proportionate share of the net OPEB Liability as of June 30, 2017, using a healthcare cost trend rates that are 1% lower or 1% higher than the current healthcare cost trend rate used is as follows:

	September 30, 2017		
	1% Decrease	Healthcare Cost Trend Rates	1% Increase
Authority's Proportionate Share of the Net OPEB Liability	$ 2,425,645.00	$ 2,918,845.00	$ 3,561,048.00

OPEB Plan Fiduciary Net Position

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the respective fiduciary net position of the State Health Benefits Local Government Retired Employees Plan (the Plan) and additions to/deductions from the Plan's respective fiduciary net position have been determined on the same basis as they are reported by the Plan. Accordingly, contributions (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value. For additional information about the Plan, please refer to the Plan's Comprehensive Annual Financial Report (CAFR) which can be found at https://www.state.nj.us/treasury/ pensions/financial-reports.shtml

Postemployment Benefits Other Than Pensions (OPEB) – Authority Plan

General Information about the OPEB Plan

Plan Description and Benefits Provided - The Authority has established a postemployment benefit plan to assist retirees in paying for medical coverage. In addition to benefits provided through the State Pension Fund, the plan provides Medicare Part B reimbursement to eligible retirees. No assets are accumulated in a trust. In accordance with GASB Statement 75, this plan is considered a Single Employer, Defined Benefit OPEB Plan that is not administered through a Trust that meets the criteria in paragraph 4 of GASB Statement 75.

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Postemployment Benefits Other Than Pensions (OPEB) – Authority Plan (Continued)

Employees Covered by Benefit Terms - At September 30, 2018 and 2017, the following employees were covered by the benefit terms:

	2018	2017
Inactive Employees or Beneficiaries Currently Receiving Benefit Payments	5	4
Inactive Employees Entitled to but Not Yet Receiving Benefit Payments	-	-
Active Employees	10	12
	15	16

Contributions - Employees are not required to contribute to the plan.

Net OPEB Liability

The Authority's total OPEB liability of $485,548.00 as of September 30, 2018 and $506,978.00 as of September 30, 2017 was measured as of September 30, 2018.

Actuarial Assumptions and Other Inputs - The following actuarial assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

Inflation	2.00% Annually
Discount Rate	4.18%
Healthcare Cost Trend Rates	
Medicare Part B	4.50%
Retirees' Share of Benefit-Related Costs	None

The discount rate was based on the 20-Bond GO Index.

Mortality rates were based on the following:

Pre-Retirement – RP-2014 Headcount-Weighted Healthy White-Collar Employee Male / Female Mortality Projected with Scale MP-2017.

Post-Retirement – RP-2014 Headcount-Weighted Healthy White-Collar Annuitant Male / Female Mortality Projected with Scale MP-2017.

Disabled - RP-2014 Headcount-Weighted Disabled Retiree Male / Female Mortality Projected with Scale MP-2017.

An experience study was not performed on the actuarial assumptions used in the September 30, 2018 valuation since the plan had insufficient data to produce a study with credible results. Mortality rates and termination rates were based on standard tables either issued by the SOA or developed for the applicable grade of employee. The actuary has used his/her professional judgement in applying these assumptions to this plan.

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Postemployment Benefits Other Than Pensions (OPEB) – Authority Plan (Continued)

Changes in the Total OPEB Liability

The following table shows the changes in the total OPEB liability for the fiscal years ended September 30, 2018 and 2017, respectively:

	2018		2017	
Balance at Beginning of Year		$ 506,978		$ 554,441
Changes for the Year:				
Service Cost	$13,743		$13,955	
Interest Cost	18,835		17,353	
Benefit Payments	(3,685)		(2,580)	
Actuarial Assumption Changes	(29,736)		(64,673)	
Actuarial Demographic Gains / (Losses)	(20,587)		(11,518)	
Net Changes		(21,430)		(47,463)
Balance at End of Year		$ 485,548		$ 506,978

Changes of assumptions and other inputs reflect a change in the discount rate from 3.50% at September 30, 2017 to 3.75% at September 30, 2018.

Sensitivity of the Total OPEB Liability to Changes in the Discount Rate - The following presents the total OPEB liability of the Authority, as well as what the Authority's total OPEB liability would be if it were calculated for using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount rate:

	September 30, 2018		
	1.00% Decrease (3.18%)	**Current Discount Rate (4.18%)**	**1.00% Increase (5.18%)**
Total OPEB Liability	$ 582,155.00	$ 485,548.00	$ 409,561.00

	September 30, 2017		
	1.00% Decrease (2.63%)	**Current Discount Rate (3.63%)**	**1.00% Increase (4.63%)**
Total OPEB Liability	$ 611,254.00	$ 506,978.00	$ 424,909.00

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Postemployment Benefits Other Than Pensions (OPEB) – Authority Plan (Continued)

Changes in the Total OPEB Liability (Continued)

Sensitivity of the Total OPEB Liability to Changes in the Healthcare Cost Trend Rates - The following presents the total OPEB liability of the Authority, as well as what the Authority's total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

	September 30, 2018		
	1.00% Decrease	Healthcare Cost Trend Rate	1.00% Increase
Total OPEB Liability	$ 406,645.00	$ 485,548.00	$ 586,573.00

	September 30, 2017		
	1.00% Decrease	Healthcare Cost Trend Rate	1.00% Increase
Total OPEB Liability	$ 421,628.00	$ 506,978.00	$ 616,215.00

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

For the years ended September 30, 2018 and 2017, the Authority recognized OPEB expense of $949 and $12,260. At September 30, 2018 and 2017, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	September 30, 2018		September 30, 2017	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of Assumptions or Other Inputs	$ -	$ 54,639.00	$ -	$ -
Changes of Actuarial Gains & Losses	-	21,198.00	-	57,143.00
	$ -	$ 75,837.00	$ -	$ 57,143.00

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Postemployment Benefits Other Than Pensions (OPEB) – Authority Plan (Continued)

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB (Continued)

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Fiscal Fiscal Year Ending September 30, 2018	
2019	$ (31,629.00)
2020	(31,628.00)
2021	(12,580.00)
	$ (75,837.00)

Postemployment Benefits Other Than Pensions (OPEB)

At September 30, 2018, the Authority reported deferred outflows of resources, accounts payable, net OPEB liability and deferred inflows of resources related to OPEB from the following sources:

	(Restated) Balance September 30, 2017	Additions	Reductions	Balance September 30, 2018
Deferred Outflows of Resources - Related to OPEB				
State Plan	$ 31,601.94	$ 295,943.85	$ (63,384.75)	$ 264,161.04
Authority Plan	-	-	-	-
Total Deferred Outflows of Resources - Related to OPEB	$ 31,601.94	$ 295,943.85	$ (63,384.75)	$ 264,161.04
Net OPEB Liability				
State Plan	$2,918,845.00	$1,097,713.04	$(1,596,222.04)	$2,420,336.00
Authority Plan	506,978.00	32,578.00	(54,008.00)	485,548.00
Total Net OPEB Liability	$3,425,823.00	$1,130,291.04	$(1,650,230.04)	$2,905,884.00
Deferred Inflows of Resources - Related to OPEB				
State Plan	$ 810,023.00	$ 943,705.80	$ (231,349.80)	$1,522,379.00
Authority Plan	57,143.00	50,323.00	(31,629.00)	75,837.00
Total Deferred Inflows of Resources - Related to OPEB	$ 867,166.00	$ 994,028.80	$ (262,978.80)	$1,598,216.00

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Long Term Debt

Long-Term Debt of the Authority consists of Revenue Bonds, 2009 Series A, two New Jersey Environmental Infrastructure Trust (NJEIT) Loans, Pension Liability, Compensated Absences Payable, and OPEB Liability. The Bond covenants are discussed in Note 2. Pension liability due within one year is included in Accounts Payable and Accrued Expenses in the Statements of Net Position.

During the fiscal year ended September 30, 2018 and 2017, the following changes occurred in bonds, loans, pension liability, and compensated absences payable:

	Balance September 30, 2017	Increase	Decrease	Balance September 30, 2018	Due Within One Year
Bonds	$1,428,172.12		$ (180,742.31)	$1,247,429.81	$190,000.00
NJEIT Loans	1,330,748.18		(134,956.81)	1,195,791.37	115,299.85
Other Liab – Related to Pensions	19,250.00	$ 21,037.00	(19,250.00)	21,037.00	
Pension Liability	1,934,881.00	935,167.00	(1,204,389.00)	1,665,659.00	
Compensated Absences	134,548.71	62,310.88	(60,265.24)	136,594.35	8,934.07
OPEB Liability	260,928.00	2,905,884.00	(260,928.00)	2,905,884.00	
	$5,108,528.01	$3,924,398.88	$(1,860,531.36)	$7,172,395.53	$314,233.92

	Balance September 30, 2016	Increase	Decrease	Balance September 30, 2017	Due Within One Year
Bonds	$1,603,985.68		$ (175,813.56)	$1,428,172.12	$ 180,000.00
NJEIT Loans	1,468,976.89		(138,228.71)	1,330,748.18	113,940.05
Other Liab – Related to Pensions	17,658.00	$ 19,250.00	(17,658.00)	19,250.00	
Pension Liability	2,354,773.00	741,221.00	(1,161,113.00)	1,934,881.00	
Compensated Absences	127,523.98	55,268.64	(48,243.91)	134,548.71	8,934.07
OPEB Liability	223,881.20	40,357.00	(3,310.20)	260,928.00	
	$5,796,798.75	$ 856,096.64	$(1,544,367.38)	$5,108,528.01	$ 302,874.12

Note 5: DETAIL NOTES – LIABILITIES (CONTINUED)

Long Term Debt (Continued)

In 2016, the State of New Jersey Environmental Infrastructure Trust (NJEIT) Program partially refunded the Authority's NJEIT 2008A loans. This refunded debt became the 2016-A-R1 loans. The NJEIT adjusted the amortization schedule for the remaining payments due for the Trust portion of the loan. Principal was reduced by $78,000.00 and interest was reduced by $64,404.84 in accordance with the terms of the refunding. See note 4 for more information on the deferred amount on refunding associated with this refunding.

The Authority did not spend all of the available funding from the NJEIT loans available for the Lambs Road Water project. As of September 30, 2011, the NJEIT prepared a final settlement of the funding, and the remaining amount of the Fund portion of the grant reduced the scheduled payments due for the Fund portion of the Loan in 2025 to 2028. The remaining amount of the Trust portion of the grant was being held by the NJEIT, and reduced the scheduled payments due for the Trust portion of the loan at the discretion of the NJEIT in the form of credits against the scheduled amounts due.

A summary of Bonds Payable and NJEIT Loans is as follows:

	Original Issue	Maturities	Range of Interest Rates	Balance September 30, 2018
Bonds Payable, 2009 Series A	$1,830,000.00	2010-2024	2.00-4.00%	$ 1,245,000.00
Add: Unamortized Premium				2,429.81
Net Bonds Payable				$ 1,247,429.81

	Original Issue	Maturities	Range of Interest Rates	Balance September 30, 2018
NJEIT Fund Loan, Series 2016A-R1	$1,169,631.00	2009-2025	N/A	$ 396,852.25
NJEIT Trust Loan, Series 2016A-R1	1,185,000.00	2010-2028	5.00-5.50%	687,000.00
Add: Unamortized Premium				111,939.12
Net NJEIT Loans				$ 1,195,791.37

Future maturities of the bonds and loans are as follows:

	Principal	Interest	Total
2019	$ 305,299.85	$ 90,600.00	$ 395,899.85
2020	315,417.92	72,600.00	380,107.33
2021	318,257.33	61,850.00	384,018.55
2022	333,118.55	50,900.00	387,163.56
2023	347,813.56	39,350.00	387,163.56
2024 and thereafter	708,945.04	63,560.00	772,505.04
	2,328,852.25	$ 370,260.00	$ 2,699,112.25
Add (Net of Accumulated Amortization): Premium on Bonds and Loans	114,368.93		
	$ 2,443,221.18		

Note 6: DETAIL NOTES – NET POSITION

Net Position Unrestricted

The balance of unrestricted net position (deficit) is comprised of the following at September 30, 2018:

	2018
Deferred Outflows – Pension Related	$ 404,680.00
Accrued Liabilities Related to Pensions	
Current	(84,146.00)
Noncurrent	(21,037.00)
Deferred Inflows – Pension Related	(607,318.00)
Net Pension Liability	(1,665,659.00)
Unrestricted Net Deficit Related to Pensions (GASBs No. 68 and 71)	(1,973,480.00)
Deferred Outflows – OPEB Related	264,161.04
Deferred Inflows - OPEB Related	(1,598,216.00)
OPEB Liability	(2,905,884.00)
Unrestricted Net Deficit Related to OPEB (GASB 75)	(4,239,938.96)
Unrestricted Net Position Not Including Activity Related to Pensions and OPEB	3,320,407.22
Unrestricted Net Deficit	$ (2,893,011.74)

Net Position Appropriated

Of the balance in unrestricted net position not including activity related to pensions and OPEB at September 30, 2018, $286,016.00 has been appropriated and included as support in the operating budgets for the fiscal year ending September 30, 2019.

Note 7: RISK MANAGEMENT

The Authority is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. These risks are covered through two Joint Insurance Pools. The Authority is a member of the New Jersey Utilities Authority Joint Insurance Fund and the Municipal Excess Liability Joint Insurance Fund.

The Fund provides the Authority with the following coverage:

Commercial Property
General and Auto Liability
Workers' Compensation
Public Official's Liability
Excess Public Official's and Employment Practices
Fidelity Bond/Employee Dishonesty
Environmental Liability

Annual contributions to the Fund are determined by the Fund's Board of Trustees. The Authority is jointly and severably liable for claims insured by the Fund and its members during the period of its membership, including liability for supplemental assessments, if necessary. The Fund's Board of Trustees may authorize refunds to its members in any fund year for which contributions exceed the amount necessary to fund all obligations for that year.

Note 8: RESERVE FOR ARBITRAGE REBATE

The Tax Reform Act of 1986 placed restriction on investments of the proceeds of certain tax-exempt bonds issued after December 31, 1986. Specifically, investment earnings which are above arbitrage bond yield are required to be rebated to the United States Treasury Department within sixty days of the end of the fifth bond year. A bond year is defined as ending on the anniversary date of bond settlement.

Based upon calculations performed as required, the Authority has not recorded any arbitrage liability, nor has any reserve been established.

Note 9: RELATED PARTY TRANSACTIONS

The following notes the more significant related party transactions during the fiscal year ended September 30, 2018 and 2017:

The Authority had accrued liabilities to the Township for the fiscal year ended September 30, 2018 in the amount of $184,156.00. This represented 5% of budgeted operating appropriations for the fiscal year in accordance with N.J.S.A. 40A:5A-12.1 for water and sewer service. $179,951.00 was budgeted and accrued for the fiscal year ended September 30, 2017 and paid during fiscal year 2018. This represented 5% of budgeted operating appropriations for fiscal year 2017 in accordance with N.J.S.A. 40A:5A-12.1 for sewer service and less than 5% of budgeted operating appropriations for fiscal year 2017 for water services as there was not enough of a surplus for water services in the September 30, 2018 to budget and accrue the full amount.

The Authority entered into a “Shared Services Agreement” (“the Agreement”) with the Township effective August 18, 2015 through August 17, 2025. The Agreement can be terminated prior to August 17, 2025 only by a formal resolution of both parties. The Authority is providing payroll services, economic development and redevelopment services, and Council on Affordable Housing (“COAH”) services to the Township. According to the Agreement, the fee due to the Authority for these services was originally $50,000.00 annually, which is due 45 days after the final adoption of the Township budget. The Agreement states that the Township will provide certain services to the Authority such as police services when needed on one of the Authority’s projects, but the Authority is not required to pay the Township a fee for these services. The Agreement provides that additional shared services may be provided by either the Township or the Authority, and additional compensation for these additional services will be in an amount agreed to mutually. In 2016, the Township agreed to provide additional reimbursement of $13,000.00 per year for economic development services, beginning January 1, 2016. $63,916.66 remained unpaid to the Authority for services provided to the Township from the commencement of the Agreement through both fiscal years ended September 30, 2018 and 2017.

The Authority purchases fuel from the Township which purchases it in large quantities from an outside vendor. Purchases made by the Authority from the Township for the fiscal years ended September 30, 2018 and 2017 totaled $8,363.80 and $5,660.63, respectively.

Note 10: CONTINGENCIES

Litigation - The Authority is a defendant in several legal proceedings that are in various stages of litigation. It is believed that the outcome, or exposure to the Authority, from such litigation is either unknown or potential losses, if any, would not be material to the financial statements.

REQUIRED SUPPLEMENTARY INFORMATION

35100

The Mantua Township Municipal Utilities Authority
Required Supplementary Information
Schedule of Changes in the Authority's Total OPEB Liability and Related Ratios
Authority Plan
Last Two Fiscal Years

	Fiscal Year Ended September 30,	
Total OPEB Liability	**2018**	**2017**
Service Cost	$ 13,743.00	$ 13,955.00
Interest Cost	18,835.00	17,353.00
Benefit Payments	(3,685.00)	(2,580.00)
Actuarial Assumption Changes	(29,736.00)	(64,673.00)
Actuarial Demographic Gains	(20,587.00)	(11,518.00)
Net Change in Total OPEB Liability	(21,430.00)	(47,463.00)
Total OPEB Liability - Beginning of Fiscal Year	506,978.00	554,441.00
Total OPEB Liability - End of Fiscal Year	$ 485,548.00	$ 506,978.00
Covered-Employee Payroll	$ 746,147.87	$ 692,391.37
Total OPEB Liability as a Percentage of Covered-Employee Payroll	0.650739645	0.732213055

Note: This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, this presentation will only include information for those years for which information is available.

The Mantua Township Municipal Utilities Authority
Required Supplementary Information
Schedule of the Authority's Proportionate Share of the Net OPEB Liability
State Health Benefits Local Government Retired Employees Plan
Last Two Plan Years

	Measurement Date Ended September 30,	
	2018	**2017**
Authority's Proportion of the Net OPEB Liability	0.015449%	0.014597%
Authority's Proportionate Share of the Net OPEB Liability	$ 2,420,336.00	$ 2,918,845.00
Authority's Covered Payroll (Plan Measurement Period)	$ 639,158.00	$ 600,058.00
Authority's Proportionate Share of the Net OPEB Liability as a Percentage of Covered Payroll	378.68%	486.43%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	1.97%	1.03%

Note: This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, this presentation will only include information for those years for which information is available.

35100

The Mantua Township Municipal Utilities Authority
Required Supplementary Information
Schedule of the Authority's OPEB Contributions
State Health Benefits Local Government Retired Employees Plan
Last Two Fiscal Years

	Fiscal Year Ended September 30,	
	2018	**2017**
Authority's Required Contributions	$ 107,066.08	$ 94,581.03
Authority's Contributions in Relation to the Required Contribution	(107,066.08)	(94,581.03)
Authority's Contribution Deficiency (Excess)	$ -	$ -
Authority's Covered Payroll (Fiscal Year)	$ 639,158.00	$ 600,058.00
Authority's Contributions as a Percentage of Covered Payroll	16.75%	15.76%

Note: This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, this presentation will only include information for those years for which information is available.

35100

The Mantua Township Municipal Utilities Authority
Required Supplementary Information
Schedule of the Authority's Proportionate Share of the Net Pension Liability
Public Employees' Retirement System (PERS)
Last Six Plan Years

	Measurement Date Ending June 30,		
	2018	**2017**	**2016**
Authority's proportion of the net pension liability	0.8459631300%	0.8311913300%	0.0079507131%
Authority's proportionate share of the net pension liability	$ 1,665,659.00	$ 1,934,881.00	$ 2,354,773.00
Authority's covered payroll (plan measurement period)	$ 594,084.00	$ 574,356.00	$ 546,952.00
Authority's proportionate share of the net pension liability as a percentage of it's covered payroll	280.37%	336.88%	430.53%
Plan fiduciary net position as a percentage of the total pension liability	53.60%	48.10%	40.14%
	2015	**2014**	**2013**
Authority's proportion of the net pension liability	0.0082761856%	0.0086005871%	0.0086452244%
Authority's proportionate share of the net pension liability	$ 1,857,838.00	$ 1,610,265.00	$ 1,652,274.00
Authority's covered payroll (plan measurement period)	$ 570,900.00	$ 594,776.00	$ 596,364.00
Authority's proportionate share of the net pension liability as a percentage of it's covered payroll	325.42%	270.73%	277.06%
Plan fiduciary net position as a percentage of the total pension liability	47.93%	52.08%	48.72%

Note: This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, this presentation will only include information for those years for which information is available.

The Mantua Township Municipal Utilities Authority
Required Supplementary Information
Schedule of the Authority's Contributions
Public Employees' Retirement System (PERS)
Last Six Plan Years

	Year Ended September 30,		
	2018	**2017**	**2016**
Contractually required contribution	$ 84,146.00	$ 77,001.00	$ 70,633.00
Contributions in relation to the contractually required contribution	(84,146.00)	(77,001.00)	(70,633.00)
Contribution deficiency (excess)	$ -	$ -	$ -
Authority's covered payroll (fiscal year)	$ 639,158.00	$ 600,058.00	$ 569,937.00
Contributions as a percentage of Authority's covered payroll	13.17%	12.83%	12.39%
	2015	**2014**	**2013**
Contractually required contribution	$ 71,153.00	$ 70,902.00	$ 65,140.00
Contributions in relation to the contractually required contribution	(71,153.00)	(70,902.00)	(65,140.00)
Contribution deficiency (excess)	$ -	$ -	$ -
Authority's covered payroll (fiscal year)	$ 539,733.00	$ 550,200.00	$ 594,610.00
Contributions as a percentage of Authority's covered payroll	13.18%	12.89%	10.96%

Note: This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, this presentation will only include information for those years for which information is available.

The Mantua Township Municipal Utilities Authority
Notes to Required Supplementary Information
For the Fiscal Year Ended September 30, 2018

Note 1: POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB) - STATE HEALTH BENEFITS LOCAL GOVERNMENT RETIRED EMPLOYEES PLAN

Changes in Benefit Terms

None

Changes in Assumptions

In 2017, the discount rate changed to 3.58% from 2.85%. In 2018, the discount rate changed to 3.87% from 3.58%, there were changes in the census, claims and premiums experience and a decrease in the assumed health care cost trend and excise tax assumptions.

Note 2: POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB) - AUTHORITY PLAN

Changes in Benefit Terms

None

Changes in Assumptions

For 2017, the discount rate changed from 3.06% as of September 30, 2016 to 3.63% as of September 30, 2017. For 2018, the discount rate changed from 3.63% as of September 30, 2017 to 4.18% as of September 30, 2018. The mortality table projection scale at September 30, 2017 was updated from MP-2016 to MP-2017 and at September 30, 2018 was updated from MP-2017 to MP-2018 to reflect the latest projection scales published by the Society of Actuaries

Note 3: POSTEMPLOYMENT BENEFITS - PENSION

Public Employees' Retirement System (PERS)

Changes in Benefit Terms

None

Changes in Assumptions

The Discount Rate changed at June 30th over the following years, 5.39% 2014, 4.90% 2015, 3.98% 2016, 5.00% 2017 and 5.66% 2018.

The Long-term Expected Rate of Return changed at June 30th over the following years, 7.90% 2014 and 2015, 7.65% 2016, 7.00% 2017 and 2018

For 2016, demographic assumptions were revised in accordance with the results of the July 1, 2011 - June 30, 2014 experience study and the mortality improvement scale incorporated the Plan actuary's modified MP-2014 projection scale. Further, salary increases were assumed to increase between 1.65% and 4.15% (based on age) through fiscal year 2026 and 2.65% and 5.15% (based on age) for each fiscal year thereafter.

For 2015, the social security wage base was set at $118,500.00 for 2015, increasing 4.00% per annum, compounded annually and the 401(a)(17) pay limit was set at $265,000.00 for 2015, increasing 3.00% per annum, compounded annually.

OTHER SUPPLEMENTARY INFORMATION SCHEDULES

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Schedule of Revenue, Expenses and Changes in Net Position by Utility
For the Fiscal Year Ended September 30, 2018

	Water Utility	Sewer Utility	Total
Operating Revenue:			
Service Charges	$ 2,020,768.22	$ 1,929,338.91	$ 3,950,107.13
Connection Fees	39,050.00	18,900.00	57,950.00
Other Operating Revenue	84,347.34	70,383.19	154,730.53
Total Operating Revenue	2,144,165.56	2,018,622.10	4,162,787.66
Operating Expenses:			
Administration:			
Salaries and Wages	172,069.28	172,069.28	344,138.56
Fringe Benefits	134,695.54	127,974.77	262,670.31
Other Expenses	120,854.00	103,772.26	224,626.26
Cost of Service:			
Salaries and Wages	224,882.48	180,146.91	405,029.39
Fringe Benefits	143,976.05	108,123.78	252,099.83
Other Expenses	711,848.13	916,235.18	1,628,083.31
Depreciation and Amortization	244,041.57	144,184.82	388,226.39
Total Operating Expenses	1,752,367.05	1,752,507.00	3,504,874.05
Operating Income	391,798.51	266,115.10	657,913.61
Non-Operating Revenue (Expenses):			
Tower Rental Income	53,323.41	-	53,323.41
Investment Income	16,781.39	16,137.66	32,919.05
Interest on Debt	(30,067.17)	(53,489.05)	(83,556.22)
As Appropriated to Municipality	(90,649.00)	(93,507.00)	(184,156.00)
Miscellaneous Non-operating Income/Expenses	(45,214.00)	(16,010.32)	(61,224.32)
Net Non-Operating Expenses	(95,825.37)	(146,868.71)	(242,694.08)
Change in Net Position	295,973.14	119,246.39	415,219.53
Net Position October 1	5,895,155.12	3,982,485.82	9,877,640.94
Cumulative Effect of Change in Accounting Principles	(2,000,229.53)	(2,000,229.53)	(4,000,459.06)
Net Position October 1 (Restated)	3,894,925.59	1,982,256.29	5,877,181.88
Net Position September 30	$ 4,190,898.73	$ 2,101,502.68	$ 6,292,401.41
Net Position (Deficit):			
Net Investment in Capital Assets	$ 4,332,073.00	$ 3,602,154.78	$ 7,934,227.78
Restricted for Bond Trust Indenture	581,192.37	669,993.00	1,251,185.37
Unrestricted	(722,366.64)	(2,170,645.10)	(2,893,011.74)
	$ 4,190,898.73	$ 2,101,502.68	$ 6,292,401.41

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Schedule of Water Utility Operations -- Revenue, Operating Appropriations, Principal Payments and Non-Operating Appropriations Compared to Budget - Budgetary Basis
For the Fiscal Year Ended September 30, 2018

	Adopted Budget	Transfers/ Modifications	Final Budget	Actual	Variance Favorable (Unfavorable)
Operating Revenues:					
Service Charges	$ 2,194,550.00		$ 2,194,550.00	$ 2,020,768.22	$ (173,781.78)
Connection Fees	-		-	39,050.00	39,050.00
Other Operating Revenues	-		-	84,347.34	84,347.34
Total Operating Revenues	2,194,550.00	-	2,194,550.00	2,144,165.56	(50,384.44)
Non-Operating Revenues:					
Investment Income (Exclusive of Unrealized/Realized Gain)	-		-	16,781.39	16,781.39
Mobile Antenna Lease	-		-	53,323.41	53,323.41
Total Anticipated Revenues	2,194,550.00	-	2,194,550.00	2,214,270.36	19,720.36
Operating Appropriations:					
Administration:					
Salaries and Wages	160,506.00		160,506.00	172,069.28	(11,563.28)
Fringe Benefits	176,753.00		176,753.00	132,921.02	43,831.98
Other Expenses	166,950.00		166,950.00	120,854.00	46,096.00
Total Administration	504,209.00	-	504,209.00	425,844.30	78,364.70
Cost of Service:					
Salaries and Wages	228,256.00		228,256.00	224,882.48	3,373.52
Fringe Benefits	202,068.00		202,068.00	140,743.35	61,324.65
Other Expenses	764,511.00		764,511.00	711,848.13	52,662.87
Total Cost of Service	1,194,835.00	-	1,194,835.00	1,077,473.96	117,361.04
Principal Payments on Debt Service in Lieu of Depreciation	113,940.00		113,940.00	113,940.05	(0.05)
Total Operating Appropriations	1,812,984.00	-	1,812,984.00	1,617,258.31	195,725.69
Non-Operating Appropriations:					
Interest on Debt	46,080.00		46,080.00	30,067.17	16,012.83
Renewal and Replacement Reserves	339,000.00		339,000.00	69,619.80	269,380.20
As Appropriated to Municipality	90,649.00		90,649.00	90,649.00	-
Miscellaneous Non-operating (Income)/Expenses	-		-	45,214.00	(45,214.00)
Total Non-Operating Appropriations	475,729.00	-	475,729.00	235,549.97	240,179.03
Total Operating, Principal Payments and and Non-Operating Appropriations	2,288,713.00	-	2,288,713.00	1,852,808.28	435,904.72
Unrestricted Net Position Utilized	(94,163.00)		(94,163.00)	-	(94,163.00)
Total Appropriations	2,194,550.00	-	2,194,550.00	1,852,808.28	341,741.72
Excess of Budgetary Revenue Over Budgetary Appropriations	$ -	$ -	$ -	$ 361,462.08	$ 361,462.08

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Schedule of Sewer Utility Operations -- Revenue, Operating Appropriations, Principal Payments and Non-Operating Appropriations Compared to Budget - Budgetary Basis
For the Fiscal Year Ended September 30, 2018

	Adopted Budget	Transfers/ Modifications	Final Budget	Actual	Variance Favorable (Unfavorable)
Operating Revenues:					
Service Charges	$ 1,938,000.00		$ 1,938,000.00	$ 1,929,338.91	$ (8,661.09)
Connection Fees	-		-	18,900.00	18,900.00
Other Operating Revenues	-		-	70,383.19	70,383.19
Total Operating Revenues	1,938,000.00	-	1,938,000.00	2,018,622.10	80,622.10
Non-Operating Revenues:					
Investment Income (Exclusive of Unrealized/Realized Gain)	-		-	16,137.66	16,137.66
Total Anticipated Revenues	1,938,000.00	-	1,938,000.00	2,034,759.76	96,759.76
Operating Appropriations:					
Administration:					
Salaries and Wages	160,506.00		160,506.00	172,069.28	(11,563.28)
Fringe Benefits	138,876.00		138,876.00	126,639.61	12,236.39
Other Expenses	148,050.00		148,050.00	103,772.26	44,277.74
Total Administration	447,432.00	-	447,432.00	402,481.15	44,950.85
Cost of Service:					
Salaries and Wages	178,415.00		178,415.00	180,146.91	(1,731.91)
Fringe Benefits	158,768.00		158,768.00	105,426.16	53,341.84
Other Expenses	905,532.00		905,532.00	916,235.18	(10,703.18)
Total Cost of Service	1,242,714.00	-	1,242,715.00	1,201,808.25	40,906.75
Principal Payments on Debt Service in Lieu of Depreciation	180,000.00		180,000.00	180,000.00	-
Total Operating Appropriations	1,870,147.00	-	1,870,147.00	1,784,289.40	85,857.60
Non-Operating Appropriations:					
Interest on Debt	54,700.00		54,700.00	53,489.05	1,210.95
Renewal and Replacement Reserves	171,000.00		171,000.00	46,413.20	124,586.80
As Appropriated to Municipality	93,507.00		93,507.00	93,507.00	-
Miscellaneous Non-operating (Income)/Expenses	-		-	16,010.32	(16,010.32)
Total Non-Operating Appropriations	319,207.00	-	319,207.00	209,419.57	109,787.43
Total Operating, Principal Payments, and and Non-Operating Appropriations	2,189,354.00	-	2,189,354.00	1,993,708.97	195,645.03
Unrestricted Net Position Utilized	(251,354.00)		(251,354.00)	-	(251,354.00)
Total Appropriations	1,938,000.00	-	1,938,000.00	1,993,708.97	(55,708.97)
Excess of Budgetary Revenue Over Budgetary Appropriations	$ -	$ -	$ -	$ 41,050.79	$ 41,050.79

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY

Schedules of Anticipated Revenue, Operating Appropriations, Principal Payments and Non-Operating Appropriations Compared to Budget - Budgetary Basis

For the Fiscal Year Ended September 30, 2018

Reconciliation of Excess of Budgetary Revenue over Budgetary Expenses to Operating Income

Excess of Revenue Over Expenses and Other Costs		
Schedule 2 - Water Utility	$ 361,462.08	
Schedule 3 - Sewer Utility	41,050.79	
		$ 402,512.87
Add:		
Debt Service Principal Payments	293,940.05	
Interest on Debt	83,556.22	
Payment to Township of Mantua	184,156.00	
Miscellaneous Non-operating (Income)/Expenses	61,224.32	
Capital Outlays	116,033.00	
		738,909.59
		1,141,422.46
Less:		
Tower Rental Income	53,323.41	
Difference of GAAP Pension and Other Post Retirement Benefits Expense vs. Budgetary Basis	9,040.00	
Investment Income, Including Unrealized Gain	32,919.05	
Depreciation	388,226.39	
		483,508.85
Operating Income (Exhibit B)		$ 657,913.61

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Schedule of Revenue Bonds Payable
For the Fiscal Year Ended September 30, 2018

Purpose	Date of Issue	Original Issue	Maturities of Bonds Date	Maturities of Bonds Amount	Interest Rate	Balance October 1, 2017	Issued	Payments and Other Reductions	Balance September 30, 2018
Revenue Bonds, 2009 Series A	08/26/09	$ 1,830,000.00	09/01/19	$ 190,000.00	3.50%				
			09/01/20	195,000.00	4.00%				
			09/01/21	200,000.00	4.00%				
			09/01/22	210,000.00	4.00%				
			09/01/23	220,000.00	4.00%				
			09/01/24	230,000.00	4.00%				
				1,245,000.00		$ 1,425,000.00	$ -	$ 180,000.00	$ 1,245,000.00
						Add: Unamortized Premium on 2009 Bonds			2,429.81
									$ 1,247,429.81

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Schedule of New Jersey Environmental Infrastructure Trust Loans Payable
For the Fiscal Year Ended September 30, 2018

Purpose	Year of Issue	Original Issue	Loan Principal Payments Outstanding September 30, 2018 Year	Loan Principal Payments Outstanding September 30, 2018 Amount	Interest Rate	Balance October 1, 2017	Issued	Payments and Other Reductions	Balance September 30, 2018
New Jersey Environmental Infrastructure Fund	11/06/08	$ 1,169,631.00	2019	$ 60,299.85					
Fund Loan, Series 2016A-R1 (Non-Interest Bearing)			2020	61,417.92					
			2021	59,257.33					
			2022	60,118.55					
			2023	60,813.56					
			2024	61,342.37					
			2025	33,602.67					
				396,852.25		$ 455,792.30	$ -	$ 58,940.05	$ 396,852.25
New Jersey Environmental Infrastructure Trust	11/06/08	1,185,000.00	2019	55,000.00	5.25%				
Trust Loan, Series 2016A-R1 (Interest Bearing)			2020	59,000.00	5.50%				
			2021	59,000.00	5.50%				
			2022	63,000.00	5.50%				
			2023	67,000.00	5.50%				
			2024	72,000.00	5.00%				
			2025	72,000.00	5.00%				
			2026	76,000.00	5.00%				
			2027	80,000.00	5.00%				
			2028	84,000.00	5.00%				
				687,000.00		742,000.00		55,000.00	687,000.00
						$ 1,197,792.30	$ -	$ 113,940.05	1,083,852.25
						Add: Unamortized Premium on 2016A-R1 loans			111,939.12
									$ 1,195,791.37

The Mantua Township Municipal Utilities Authority

Single Audit Section

For The Year Ended September 30, 2018

REPORT ON COMPLIANCE FOR EACH MAJOR PROGRAM AND REPORT ON INTERNAL CONTROL OVER COMPLIANCE REQUIRED BY THE STATE OF NEW JERSEY CIRCULAR 15-08-OMB

INDEPENDENT AUDITOR'S REPORT

The Chairman and Members of
The The Mantua Township Municipal Utilities Authority
Mantua, New Jersey

Report on Compliance for Each Major State Program

We have audited The Mantua Township Municipal Utilities Authority's, in the County of Gloucester, State of New Jersey ("Authority"), compliance with the types of compliance requirements described in the *New Jersey State Grant Compliance Supplement* that could have a direct and material effect on each of the Authority's major state programs for the fiscal year ended September 30, 2018. The Authority's major state programs are identified in the *Summary of Auditor's Results* section of the accompanying *Schedule of Findings and Questioned Costs.*

Management's Responsibility

Management is responsible for compliance with state statutes, regulations, and the terms and conditions of its state awards applicable to its state programs.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of the Authority's major state programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; audit requirements as prescribed by the Bureau of Authority Regulation, Division of Local Government Services, Department of Community Affairs, State of New Jersey; and State of New Jersey Circular 15-08-OMB, *Single Audit Policy for Recipients of Federal Grants, State Grants and State Aid*. Those standards and State of New Jersey Circular 15-08-OMB require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major state program occurred. An audit includes examining, on a test basis, evidence about the The Mantua Township Municipal Utilities Authority's, in the County of Gloucester, State of New Jersey, compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major state program. However, our audit does not provide a legal determination of the Authority's compliance.

Opinion on Each Major State Program

In our opinion, The Mantua Township Municipal Utilities Authority, in the County of Gloucester, State of New Jersey, complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major state programs for the fiscal year ended September 30, 2018.

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Report on Internal Control Over Compliance

Management of The Mantua Township Municipal Utilities Authority, in the County of Gloucester, State of New Jersey, is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Authority's internal control over compliance with the types of requirements that could have a direct and material effect on each major state program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major state program and to test and report on internal control over compliance in accordance with the State of New Jersey Circular 15-08-OMB, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control over compliance.

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

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

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the State of New Jersey Circular 15-08-OMB. Accordingly, this report is not suitable for any other purpose.

Respectfully submitted,

Bowman & Company LLP

BOWMAN & COMPANY LLP
Certified Public Accountants
& Consultants

Woodbury, New Jersey
September 10, 2019

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Schedule of Expenditures of State Financial Assistance
For the Years Ended September 30, 2018 and 2017

State Grantor/ Program Title	State GMIS Number	Program or Award Amount	Match	Grant Period From	Grant Period To	September 30, 2017 Accounts Receivable	September 30, 2017 Deferred Revenue	Revenue Recognized	Cash Receipts	Adjustments	Disbursements or Expenditures	September 30, 2018 Accounts Receivable	September 30, 2018 Deferred Revenue	(Memo Only) Accumulated Expenditures
State Department of Environmental Protection:														
Division of Water Quality:														
Environmental Infrastructure Trust	N/A	$ 2,699,105	N/A	Open		$ -	$ -	$ 2,684,329	$ 2,414,301	$ 590,906	$ 1,917,969	$ 270,028	$ 175,454	$ 2,508,875

The accompanying Notes to Financial Statements and Notes to the Schedule of State Financial Assistance are an integral part of this schedule.

Note 1: **BASIS OF PRESENTATION**

The accompanying schedule of state financial assistance (the “schedule”) include state award activity of the The Mantua Township Municipal Utilities Authority (hereafter referred to as the “Authority”) under programs of the state government for the fiscal year ended September 30, 2018. The Authority is defined in note 1 to the Authority's basic financial statements. The information in this schedule is presented in accordance with the requirements of State of New Jersey Circular 15-08-OMB, *Single Audit Policy for Recipients of Federal Grants, State Grants and State Aid.* All state awards received directly from state agencies, as well as state financial assistance passed through other government agencies, are included on this schedule. Because this schedule presents only a selected portion of the operations of the Authority, it is not intended to and does not present the financial position and changes in net position of the Authority.

Note 2: **SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The accompanying schedule of state financial assistance is presented using the accrual basis of accounting. This basis of accounting is described in note 1 to the Authority's basic financial statements. Such expenditures are recognized following the cost principles contained in State of New Jersey Circular 15-08-OMB, *Single Audit Policy for Recipients of Federal Grants, State Grants and State Aid*, wherein certain types of expenditures are not allowed or are limited as to reimbursement.

Note 3: **RELATIONSHIP TO BASIC FINANCIAL STATEMENTS**

Amounts reported in the accompanying schedule agree with amounts reported in the Authority's basic financial statements.

Note 4: **RELATIONSHIP TO STATE FINANCIAL REPORTS**

Amounts reported in the accompanying schedule agree with the amounts reported in the related state financial reports.

Note 5: **ADJUSTMENTS**

Amounts reported in the column entitled "adjustments" represent amounts that were expended in the previous year before the grant was awarded and reimbursed with grant funds.

Note 6: **MAJOR PROGRAMS**

Major programs are identified in the *Summary of Auditor's Results* section of the *Schedule of Findings and Questioned Costs.*

The Mantua Township Municipal Utilities Authority

Schedule Of Findings And Questioned Costs

For The Fiscal Year Ended September 30, 2018

THE MANTUA TOWNSHIP MUNICIPAL UTILITIES AUTHORITY
Schedule of Findings and Questioned Costs
For the Fiscal Year Ended September 30, 2018

Section 1- Summary of Auditor's Results

Financial Statements

Type of auditor's report issued	Unmodified
Internal control over financial reporting:	
Material weakness(es) identified?	____ yes _x_ no
Significant deficiency(ies) identified?	____ yes _x_ none reported
Noncompliance material to financial statements noted?	____ yes _x_ no

Federal Awards (A Federal Single Audit was not required)

State Financial Assistance

Internal control over major programs:	
Material weakness(es) identified?	____ yes _x_ no
Significant deficiency(ies) identified?	____ yes _x_ none reported
Type of auditor's report issued on compliance for major programs	Unmodified
Any audit findings disclosed that are required to be reported in accordance with New Jersey Circular 15-08-OMB?	____ yes _x_ no

Identification of major programs:

GMIS Number(s)	Name of State Program
N/A	Environmental Infrastructure Trust

Dollar threshold used to determine Type A programs	$750,000.00
Auditee qualified as low-risk auditee?	____ yes _x_ no

The Mantua Township Municipal Utilities Authority
Schedule of Findings and Questioned Costs
For the Fiscal Year Ended September 30, 2018

Section 2 - Schedule of Financial Statement Findings

This section identifies the significant deficiencies, material weaknesses, and instances of noncompliance related to the financial statements that are required to be reported in accordance with *Government Auditing Standards* and with audit requirements as prescribed by the Bureau of Authority Regulation, Division of Local Government Services, Department of Community Affairs, State of New Jersey.

No Current Year Findings

Section 3 - Schedule of State Financial Assistance Findings and Questioned Costs

This section identifies the significant deficiencies, material weaknesses, and instances of noncompliance, including questioned costs, related to the audit of major State programs, as required by State of New Jersey Circular 15-08-OMB.

No Current Year Findings

The Mantua Township Municipal Utilities Authority
Summary Schedule of Prior Year Audit Findings and Questioned Costs
as Prepared by Management

This section identifies the status of prior year findings related to the financial statements and State Awards that are required to be reported in accordance with Government Auditing Standards and with the audit requirements as prescribed by the Bureau of Authority Regulation, Division of Local Government Services, Department of Community Affairs, State of New Jersey.

FINANCIAL STATEMENT FINDINGS

No Prior Year Findings

STATE FINANCIAL ASSISTANCE PROGRAMS

No Prior Year Findings

APPRECIATION

We express our appreciation for the courtesies extended and assistance rendered to us during the course of this audit.

Respectfully submitted,

Bowman & Company LLP

BOWMAN & COMPANY LLP
Certified Public Accountants
& Consultants