

PASSAIC VALLEY SEWERAGE COMMISSION

FINANCIAL STATEMENTS

December 31, 2016

PASSAIC VALLEY SEWERAGE COMMISSION

TABLE OF CONTENTS

December 31, 2016

	<u>Page</u>
Independent Auditors' Report	1
Basic Financial Statements – Modified Cash Basis	
Statement of Assets, Liabilities and Reserves	3
Statement of Revenues, Expenditures and Changes in Reserves	4
Notes to Financial Statements	5

INDEPENDENT AUDITORS' REPORT

To the Commissioners of
Passaic Valley Sewerage Commission

Report on the Financial Statements

We have audited the accompanying modified cash basis financial statements of the Passaic Valley Sewerage Commission (the "Commission"), which comprise the statement of assets, liabilities and reserves as of December 31, 2016, and the related statement of revenues, expenditures and changes in reserves for the year then ended, and the related notes to financial statements, which comprise the Commission's basic 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 the modified cash basis of accounting as described in Note A; this includes determining that the modified cash basis of accounting is an acceptable basis for presentation of the financial statements in the circumstances. Management is also responsible for 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.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. 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 auditors' 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.

INDEPENDENT AUDITORS' REPORT (CONTINUED)

Basis for Adverse Opinion on U.S. Generally Accepted Accounting Principles

As described on Note A, these financial statements are prepared on the modified cash basis, which is a basis of accounting other than accounting principles generally accepted in the United States of America.

The effects on the financial statements of the variances between the modified cash basis of accounting described in Note A and accounting principles generally accepted in the United States of America ("U.S. GAAP"), although not reasonably determinable, are presumed to be material.

Adverse Opinion on U.S. Generally Accepted Accounting Principles

In our opinion, because of the significance of the matter discussed in the "Basis for Adverse Opinion on U.S. GAAP" paragraph, the financial statements referred to above do not present fairly, in accordance with accounting principles generally accepted in the United States of America, the financial position of the Commission as of December 31, 2016, and the results of operations and changes in financial position for the year then ended.

Opinion on Modified Cash Basis of Accounting

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Commission as of December 31, 2016, and the results of operations and changes in financial position for the year then ended in accordance with the modified cash basis of accounting, as described in Note A.



Warren A. Broudy, CPA, CGFM, PSA, CGMA
Registered Municipal Accountant License No. 554

MERCADIEN, P.C.
CERTIFIED PUBLIC ACCOUNTANTS

June 30, 2017

PASSAIC VALLEY SEWERAGE COMMISSION

STATEMENT OF ASSETS, LIABILITIES AND RESERVES

December 31, 2016

	General Fund	Bond Reserve Fund	Insurance Trust Fund	Repair, Replacement & Improvement Fund	Capital Fund	Bond Financed Projects Fund	Wastewater Treatment Trust Fund	Doremus Site Remediation Escrow Fund	Total
Assets									
Cash and cash equivalents	\$ 62,761,989	\$ 19,967,255	\$ 5,088,277	\$ 2,413,175	\$ 3,866,980	\$ 32,497,865	\$ -	\$ 662,613	\$ 127,258,154
Investments	44,990,684	-	-	-	-	-	-	-	44,990,684
Receivables									
Interfund receivables	-	-	-	12,138,004	-	141,553	4,091,454	-	16,371,011
Accounts receivable, net of allowance \$520,177	6,348,916	-	-	-	-	-	-	-	6,348,916
Federal/state grants and loans	-	-	-	365,080,756	-	-	45,509,035	-	410,589,791
Inventory	8,748,281	-	-	-	-	-	-	-	8,748,281
Property, plant and equipment									
Construction and acquisition cost	-	-	-	60,880,630	-	-	-	-	60,880,630
Buildings	252,159,560	-	-	-	-	-	-	-	252,159,560
Machinery and equipment	97,786,994	-	-	-	-	-	-	-	97,786,994
Improvements other than building	47,029,058	-	-	-	3,656,904	163,334,791	128,111,405	-	342,132,158
Projects authorized and in process	-	-	-	19,210,567	1,959,338	1,801,987	15,733,888	-	38,705,780
Other assets									
Amounts to be provided for bond and loan retirement	-	-	-	-	-	160,470,000	103,580,052	-	264,050,052
Total Assets	\$ 519,825,482	\$ 19,967,255	\$ 5,088,277	\$ 459,723,132	\$ 9,483,222	\$ 358,246,196	\$ 297,025,834	\$ 662,613	\$ 1,670,022,011
Liabilities									
Loans payable-current	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,325,170	\$ -	\$ 10,325,170
Bonds payable-current	-	-	-	-	-	12,620,000	-	-	12,620,000
Notes Payable	-	-	-	-	-	-	15,249,457	-	15,249,457
Accounts payable	2,835,947	-	-	-	-	161,245	-	-	2,997,192
Accrued expenses	16,428,052	-	-	2,525,191	45,426	42,050	286,212	34,660	19,361,591
Payroll deductions	764,063	-	-	-	-	-	-	-	764,063
Escrow deposits	-	-	-	-	-	-	-	625,828	625,828
Interfund payable	11,846,157	-	-	4,091,454	-	291,847	141,553	-	16,371,011
Total Current Liabilities	31,874,219	-	-	6,616,645	45,426	13,115,142	26,002,392	660,488	78,314,312
Loans payable-noncurrent	-	-	-	-	-	-	93,254,882	-	93,254,882
Bonds payable-noncurrent	-	-	-	-	-	147,850,000	-	-	147,850,000
Total noncurrent liabilities	-	-	-	-	-	147,850,000	93,254,882	-	241,104,882
Total Liabilities	31,874,219	-	-	6,616,645	45,426	160,965,142	119,257,274	660,488	319,419,194
Reserves									
Insurance trust	-	-	5,088,277	-	-	-	-	-	5,088,277
Investment in inventory	8,748,281	-	-	-	-	-	-	-	8,748,281
Investment in fixed assets	396,975,612	-	-	-	-	-	-	-	396,975,612
Construction and acquisition	-	-	-	60,880,630	3,656,904	163,334,791	128,111,405	-	355,983,730
Projects authorized	-	-	-	19,210,567	1,959,338	1,801,987	15,733,888	-	38,705,780
Debt service	-	19,967,255	-	-	-	-	-	-	19,967,255
Appropriated projects	-	-	-	373,015,290	3,821,554	32,144,276	33,923,267	2,125	442,906,512
Rate stabilization	82,227,370	-	-	-	-	-	-	-	82,227,370
Total Reserves	487,951,263	19,967,255	5,088,277	453,106,487	9,437,796	197,281,054	177,768,560	2,125	1,350,602,817
Total Liabilities and Reserves	\$ 519,825,482	\$ 19,967,255	\$ 5,088,277	\$ 459,723,132	\$ 9,483,222	\$ 358,246,196	\$ 297,025,834	\$ 662,613	\$ 1,670,022,011

See notes to financial statements.

PASSAIC VALLEY SEWERAGE COMMISSION

STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN RESERVES Year Ended December 31, 2016

	General Fund	Bond Reserve Fund	Insurance Trust Fund	Repair, Replacement & Improvement Fund	Capital Fund	Bond Financed Projects Fund	Wastewater Treatment Trust Fund	Doremus Site Remediation Escrow Fund	Total
Revenues									
User charges billed	\$ 132,497,310	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 132,497,310
Sludge fees	31,758,733	-	-	-	-	-	-	-	31,758,733
Investment gain (loss), net	249,454	341	-	-	-	18	-	-	249,813
Miscellaneous	9,922,124	-	1,066,000	466,599	-	-	-	-	11,454,723
Federal/state grants and loans	-	-	-	3,760,842	-	-	3,000,000	-	6,760,842
Total	174,427,621	341	1,066,000	4,227,441	-	18	3,000,000	-	182,721,421
Expenditures									
Salaries	45,791,049	-	-	-	-	-	-	-	45,791,049
Payroll taxes	3,275,300	-	-	-	-	-	-	-	3,275,300
Employee benefits	14,365,088	-	-	-	-	-	-	-	14,365,088
Pension contribution	5,425,803	-	-	-	-	-	-	-	5,425,803
Supplies and postage	1,499,429	-	-	-	-	-	-	-	1,499,429
Replacement parts	6,277,070	-	-	88,537	-	-	-	-	6,365,607
Materials	5,891,756	-	-	-	-	-	-	-	5,891,756
Utilities	21,798,082	-	-	-	-	-	-	-	21,798,082
Rentals	217,024	-	-	-	-	-	-	-	217,024
Insurance	1,489,703	-	-	-	-	-	-	-	1,489,703
Equipment	4,675,784	-	-	97,900	691,713	-	-	-	5,465,397
Outside services	7,259,438	-	-	1,846,860	2,571,210	-	-	-	11,677,508
Professional fees	663,941	-	-	-	-	-	-	-	663,941
Permitting	890,064	-	-	-	-	-	-	-	890,064
Sludge disposal	5,672,683	-	-	-	-	-	-	-	5,672,683
Sundry	750,313	-	-	-	-	-	-	-	750,313
Advertising	65,747	-	-	-	-	-	-	-	65,747
Real estate taxes (in lieu)	1,088,799	-	-	-	-	-	-	-	1,088,799
Bad debt expense	77,425	-	-	-	-	-	-	-	77,425
Project expenditures	-	-	-	19,756,162	2,307,283	629,559	15,557,970	-	38,250,974
Bond issuance costs	-	-	-	-	-	1,172,428	-	-	1,172,428
Contingency	547,893	-	-	19	-	-	-	-	547,912
Subtotal	127,722,391	-	-	21,789,478	5,570,206	1,801,987	15,557,970	-	172,442,032
Bond debt service									
Principal	22,612,585	-	-	-	-	-	-	-	22,612,585
Interest	7,794,027	-	-	-	-	-	-	-	7,794,027
Total expenditures	158,129,003	-	-	21,789,478	5,570,206	1,801,987	15,557,970	-	202,848,644
Excess of revenues over (under) expenditures	16,298,618	341	1,066,000	(17,562,037)	(5,570,206)	(1,801,969)	(12,557,970)	-	(20,127,223)
Other Financing Sources/(Uses)									
Bond proceeds	-	-	-	-	-	30,540,000	-	-	30,540,000
Refunding bond proceeds	-	-	-	-	-	74,795,000	-	-	74,795,000
Premium on bonds	-	-	-	-	-	12,669,466	-	-	12,669,466
Payment to refunding escrow agent	-	-	-	-	-	(87,754,203)	-	-	(87,754,203)
Interfund transfers	(15,000,000)	(3,304,365)	-	10,000,000	5,000,000	3,304,365	-	-	-
Excess of revenues over (under) expenditures and other financing sources/uses	1,298,618	(3,304,024)	1,066,000	(7,562,037)	(570,206)	31,752,659	(12,557,970)	-	10,123,040
Reserves, beginning of year	80,928,752	23,271,279	4,022,277	380,577,327	4,391,760	391,617	46,481,237	2,125	540,066,374
Reserves, end of year	82,227,370	19,967,255	5,088,277	373,015,290	3,821,554	32,144,276	33,923,267	2,125	550,189,414
Investment in inventory	8,748,281	-	-	-	-	-	-	-	8,748,281
Investment in construction and acquisition	-	-	-	60,880,630	3,656,904	163,334,791	128,111,405	-	355,983,730
Investment in projects authorized	-	-	-	19,210,567	1,959,338	1,801,987	15,733,888	-	38,705,780
Investment in fixed assets	396,975,612	-	-	-	-	-	-	-	396,975,612
Total reserves	\$ 487,951,263	\$ 19,967,255	\$ 5,088,277	\$ 453,106,487	\$ 9,437,796	\$ 197,281,054	\$ 177,768,560	\$ 2,125	\$ 1,350,602,817

See notes to financial statements.

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Organization

In 1902, by a special Act of the New Jersey State Legislature, the Passaic Valley Sewerage Commission (the "Commission") was formed as an Agency of the State of New Jersey to reduce pollution of the Passaic River and its tributaries. The Commission is one of the oldest and largest, in terms of operational capability, regional sewerage commissions in the United States and is directed by a Board of Commissioners ("Commissioners") appointed by the Governor and confirmed by the State of New Jersey Senate.

In order to protect and preserve local streams and rivers from water pollution, the Commission operates one of the United States largest treatment plants for the wastewaters of northern New Jersey. With many expansions and upgrading to secondary treatment, the facility has been striving since the beginning of its operations in 1924 to improve local water quality in accordance with federal and state water quality legislation.

Reporting Entity

The Commission establishes funds to account for significant activities within its jurisdiction. Specific funds are maintained at the direction of the Commission and are included in the financial statements.

Fund Accounting

The funds of the Commission are maintained in accordance with the principles of fund accounting to ensure observance of limitations and restrictions on the resources available. The principles of fund accounting require that resources be classified for accounting and reporting purposes into funds or account groups in accordance with activities or objectives specified for the resources. Each fund is a separate accounting entity with a self-balancing set of accounts. An account group, on the other hand, is a financial reporting device designed to provide accountability for certain assets and liabilities that are not recorded in the funds because they do not directly affect net expendable available financial resources.

The following are the various funds of the Commission:

General Fund

The General Fund accounts for the cost of providing sewerage collection and treatment services to its member municipalities. Services provided are financed primarily through user charges.

Bond Reserve Fund

In addition to the annual debt service payments made by the General Fund, the Commission has further secured the payment of its serial and term bonds by covenanting and establishing a Bond Reserve Fund. The amount maintained in this fund is equal to the maximum annual interest and principal payments required in any future year through the year 2036, the maturity date of the Series I Bonds.

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Fund Accounting (Continued)

Insurance Trust Fund

The Insurance Trust Fund represents amounts set aside for possible damages resulting from liability claims.

Repair, Replacement and Improvement Fund

The Repair, Replacement and Improvement Fund represents amounts set aside for non-operating expenditures for equipment, accessories and appurtenances of the sewerage treatment plant, as well as expenditures related to Federal Emergency Management Agency ("FEMA") funding.

Capital Fund

The Capital Fund represents expenditures for permanent improvements to the sewerage treatment plant.

Bond Financed Projects Fund

The Bond Financed Projects Fund was established to account for the construction and/or acquisition of certain capital assets, principally financed by the proceeds of Revenue Bonds issued by the Passaic Valley Sewerage Commission. As of December 31, 2016, the series F, G, H and I bonds remain outstanding in the aggregate principal amount of \$160,470,000, the liability of which is presented in the Bond Financed Projects Fund.

Wastewater Treatment Trust Fund

The Wastewater Treatment Trust Fund was established for the purpose of funding the rehabilitation, renovation and improvement of the existing treatment facilities of the Commission. Funding was provided by the State of New Jersey, the New Jersey Wastewater Treatment Trust Fund, and the New Jersey Environmental Infrastructure Trust.

Doremus Site Remediation Escrow Fund

The Doremus Site Remediation Escrow Fund was established to set aside funds for future environmental remediation of property adjacent to a site acquired by the Commission.

Basis of Accounting

The accounting policies of the Commission conform to a modified cash basis, which constitute a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America ("U.S. GAAP"). These principles and practices are designed primarily for determining compliance with legal and budgetary restrictions as a means of reporting on the stewardship of public officials with respect to public funds.

Had the Commission's financial statements been prepared under U.S. GAAP,

- federal and state grant revenues would have been recognized when expended,
- fixed asset expenditures made during each year would be capitalized and depreciation expense would be recorded,
- pension plan benefit expense and resultant net pension liability would be recognized on the accrual basis,
- principal payments on debt would not be recorded as an expenditure, and
- the recording of certain reserves and related assets would not be recorded.

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Cash and Cash Equivalents

The Commission considers all highly liquid investments, with maturities of ninety days or less from the date of purchase, to be cash equivalents.

Investments

Investments, including certificate of deposits not issued and held by a bank, are stated at fair value in the statement of assets, liabilities and reserves. All interest, dividends and realized and unrealized gains and losses are reported in the statement of revenues, expenditures and changes in reserves as increases or decreases in reserves.

Revenue Recognition

User charges are recognized when billed based on an annual rate, which is in accordance with the Act that created the Commission. This Act provides that each of the contracting municipalities or other users of the system reimburse the Commission annually for its proportionate share of the cost and expense of maintenance, repair and operation, including debt service, of the system.

Grant revenues are recognized when awarded and FEMA revenue is recognized when the project funding is obligated by the federal government and spent by the Commission.

Sludge fee revenue is recognized when waste is discharged at the facility and billed based on a contracted rate.

Use of Estimates

The financial statements are prepared on a modified cash basis of accounting, which is a comprehensive basis of accounting other than U.S. GAAP which requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Accounts Receivable

The reserves are charged to an allowance for estimated uncollectible amounts based on past experience and an analysis of accounts receivable collectability. Accounts deemed uncollectible are charged to the allowance in the years they are deemed uncollectible.

Inventory

Inventory is made up of parts and supplies for the repair and maintenance of the facility. The Commission values its inventories at cost, using the first-in, first-out method.

Fixed Assets

The Commission records capital additions in the year of acquisition. The balance of fixed assets recorded in the general fund reflects the original construction costs of the system; no depreciation expense is recorded.

Compensated Absences

Employees of the Commission are entitled to paid vacation, sick days and personal days off, depending on length of service and other factors. The Commission has recorded the liability for accumulated vacation pay, sick leave and compensatory absences for all employees in accrued expenses.

A. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Serial Bonds Payable

Debt service payments are made by the General Fund. Serial Bonds payable are carried in the Bond Financed Projects Funds. Therefore, as payments are made to reduce debt, an adjustment is made in the corresponding fund.

Reserves

Reserves generally represent fund equity restricted for the stated purposes. Appropriated project reserves represent fund equity that has been pledged to future project costs. Reserve for the Insurance Trust Fund represents amounts set aside for possible damages resulting from liability claims.

The Reserve for Rate Stabilization was established in 1996 by the Commissioners to enable the Commission to stabilize user charges to its member municipalities in future years. Funds from the Reserve for Rate Stabilization are expended as needed and represent a revenue source to offset monies needed to meet the current year's budget. Increases and decreases to this Reserve for Rate Stabilization are affected by companies leaving and entering the sewerage treatment system during a measurement year in addition to any unexpended funds and revenues from the General Fund remaining at year-end.

Subsequent Event

On April 13, 2017, the Commission adopted a supplemental subordinate bond resolution for a not-to-exceed amount of \$200 million to fund various capital improvements through the New Jersey Environmental Infrastructure Financing Program (NJEIFP). The NJEIFP is a low-interest loan program jointly administered by the New Jersey Department of Environmental Protection using federal revolving funds and the New Jersey Environmental Infrastructure Trust using market rate bonds with allowable maturities up to thirty (30) years. The revolving fund loans are issued at 0% interest for 75% of the eligible project costs with the remaining 25% of eligible project costs funded at market interest rates at the time of issuance. As of the date of this report, no bonds have been issued under this bond resolution.

Change in Presentation – Statement of Revenues, Expenditures and Changes in Reserves

The basis of presentation of the Statement of Revenues, Expenditures and Changes in Reserves has been changed for the fiscal year ending December 31, 2016. Previously, the reserve balance included both expendable reserves (Reserve for Rate Stabilization, Reserve for Debt Service, Reserve for Insurance Trust and Reserve for Appropriated Projects) and non-expendable reserves (Reserve for Inventory, Investment in Fixed Assets, Reserve for Construction and Acquisition, Reserve for Projects Authorized) for all funds except the General Fund. For the year ended December 31, 2016, the basis of presentation includes only the expendable reserves as defined above. The impact of the change in presentation resulted in transfers from the opening reserve balances to the Construction and Acquisition Investment in the amount of \$342,844,199 and the Projects Authorized Investment in the amount of \$15,274,786.

B. CASH AND CASH EQUIVALENTS

The carrying amount of the Commission's cash and cash equivalents consisted mainly of demand and money market accounts. The difference between the bank balance and the book balance is due primarily to the timing of deposits and outstanding checks.

Cash and cash equivalents are substantially restricted under the terms of the Commission's bond resolutions for the payment of bond principal and interest expense and the extension of project loans. The bond resolutions limit investments to direct obligations of the United States of America or other obligations in which payments and interest are unconditionally guaranteed by the United States of America.

Deposits

Custodial credit risk- This is the risk that in the event of a bank failure, the Commission will not be able to recover the value of its deposits that are in the possession of an outside party. The deposits in the JP Morgan bank accounts were covered by the Federal Deposit Insurance Company (the "FDIC"), as well as a collateral pledge from JP Morgan, which was greater than the deposit balance at December 31, 2016. The Bank of New York money market funds are invested in the Goldman Sachs Financial Square Treasury Obligation Fund, which is comprised of treasury securities backed by the U.S. Government and a Federal Home Loan Bank Discount Note.

Concentration of Credit Risk – This is the risk associated with the amount of investments the Commission has with any one issuer that exceeds five percent or more of its total investments. Investments issued or explicitly guaranteed by the U.S. government are excluded from this requirement.

Credit Risk – This is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. In general, the Commission does not have an investment policy regarding credit risk, however, the Commission had no investments that were subject to credit risks as of December 31, 2016.

Interest Rate Risk – This is the risk that changes in interest rates will adversely affect the fair value of an investment. The Commission does not have a formal policy that limits investment maturities as a means of managing its exposure to fair value losses arising from interest rate fluctuations. However, its practice is to hold investments to maturity.

The amounts deposited in these accounts at December 31, 2016, are as follows:

	Book Balance	Bank Balance
JP Morgan Bank	\$ 64,792,882	\$ 65,373,456
Santander Bank	10,000,151	10,000,151
Bank of New York	52,465,121	52,465,121
	<u>\$ 127,258,154</u>	<u>\$ 127,838,728</u>

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

C. INVESTMENTS

Investments at December 31, 2016, are as follows:

	December 31, 2016		
	Cost	Fair Value	Unrealized Appreciation (Depreciation)
Certificate of deposit	\$ 5,000,000	\$ 5,000,000	\$ -
U.S. Treasury Bills	19,975,983	19,989,122	13,139
U.S. Treasury Notes	20,000,002	20,001,562	1,560
	<u>\$ 44,975,985</u>	<u>\$ 44,990,684</u>	<u>\$ 14,699</u>

D. FAIR VALUE MEASUREMENT

The Commission categorizes its fair value measurements within the fair value hierarchy established by Governmental Accounting Standards Board Statement Number 72. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. The fair value hierarchy ranks the quality and reliability of the information used to determine fair values. Financial assets and liabilities carried at fair value are classified and disclosed in one of the following three categories;

- Level 1 — Quoted prices for identical assets and liabilities traded in active exchange markets.
- Level 2 — Observable inputs other than Level 1 including quoted prices for similar assets or liabilities, quoted prices in less active markets, or other observable inputs that can be corroborated by observable market data. Level 2 also includes derivative contracts whose value is determined using a pricing model with observable market inputs or can be derived principally from or corroborated by observable market data.
- Level 3 — Unobservable inputs supported by little or no market activity for financial instruments whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation; also includes observable inputs for nonbinding single dealer quotes not corroborated by observable market data.

U.S. Treasury and Federal Agency Securities - Valuation inputs utilized by the independent pricing service for those U.S. Treasury and federal agency securities under Level 2 include benchmark yields, reported trades, broker/dealer quotes, issuer spreads, benchmark securities, bids, offers and reference data, including market research publications. Also included are data from the vendor trading platform.

Certificates of Deposit - The fair value of certificates of deposit is the market value based on quoted market prices of similar instruments when available. If listed prices or quotes are not available, fair value is based upon cost, stated interest rates and maturity dates of the certificates of deposit in order to calculate the premium or discount.

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

D. FAIR VALUE MEASUREMENT

Assets measured at fair value on a recurring basis as of December 31, 2016 are summarized as follows:

	December 31, 2016			Total
	Level 1	Level 2	Level 3	
ASSETS				
Certificate of deposit	\$ -	\$ 5,000,000	\$ -	\$ 5,000,000
U.S. Treasury Bills	19,989,122	-	-	19,989,122
U.S. Treasury Notes	20,001,562	-	-	20,001,562
	<u>\$ 39,990,684</u>	<u>\$ 5,000,000</u>	<u>\$ -</u>	<u>\$ 44,990,684</u>

E. FORWARD DELIVERY AGREEMENT

On September 11, 1996, the Commission entered into a Forward Delivery Agreement (the "Agreement") with First Union Bank, now Wells Fargo Bank (the "Bank") related to the Series D Bonds, subsequently refunded by Series F Bonds. The Agreement stipulated that certain proceeds from the bond issuance would be deposited with the Bank in a debt service reserve fund (the "Fund"). The Commission was paid an upfront fee in exchange for interest earnings on the Fund until the year 2022. Under the terms of the Agreement, the Commission is precluded from prematurely redeeming, defeasing or refunding the Series G, F or E Bonds unless it has sufficient funds to repurchase the Bank's interest in the Agreement at the fair value at the date of termination. As of December 31, 2016, the termination value of the Agreement was \$2,258,998.

F. AMOUNTS TO BE PROVIDED FOR LOAN AND BOND RETIREMENT

The Commission has established a mechanism to record future amounts to be provided by member municipalities to fund retirement of loan and serial bond principal. These amounts are presented in the statements of assets, liabilities and reserves and correspond to the outstanding balances payable for serial bonds and loans.

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

G. BONDS PAYABLE, LOANS PAYABLE AND NOTES PAYABLE

Pursuant to an amendment to Title 58, Chapter 14 of the New Jersey Revised Statutes, the Commission was granted the authority to issue bonds. The Authority also has various loans through the New Jersey Environmental Infrastructure Trust financing program. Both the bonds and loans are issued to fund various capital improvements.

Year, Series/Title	Original Issue Amount	Interest Rate Range	Maturity Dates	Outstanding December 31, 2015	Additions	Reductions	Outstanding December 31, 2016	Due within One Year
Bonds								
1999, Series E	\$ 43,000,000	4.50%-5.75%	2017	\$ 3,870,000	\$ -	\$ 3,870,000	\$ -	\$ -
2003, Series F	205,205,000	2.50%-5.00%	2032	119,915,000	-	82,855,000	37,060,000	-
2010, Series G	29,950,000	5.62%-5.75%	2022	29,950,000	-	-	29,950,000	-
2016, Series H	74,795,000	3.00%-5.00%	2025	-	74,795,000	11,875,000	62,920,000	11,645,000
2016, Series I	30,540,000	2.25%-5.00%	2036	-	30,540,000	-	30,540,000	975,000
Total bonds payable				<u>153,735,000</u>	<u>105,335,000</u>	<u>98,600,000</u>	<u>160,470,000</u>	<u>12,620,000</u>
Loans								
1996 Trust and Fund Loan	31,880,000	5.00%-5.25%	2016	1,934,101	-	1,934,101	-	-
1998 Trust and Fund Loan	8,865,000	4.00%-4.50%	2018	977,234	-	330,000	647,234	340,000
1999 Trust and Fund Loan	128,925,000	4.75%-5.70%	2019	6,767,207	-	1,617,507	5,149,700	1,663,859
2006 Trust and Fund Loan	38,894,500	4.00%-5.00%	2026	22,791,488	-	2,210,962	20,580,526	2,231,806
2007 Trust and Fund Loan	24,926,867	3.40%-5.00%	2022	5,514,598	-	1,331,580	4,183,018	1,344,321
2010A ARRA Trust and Fund Loan	12,542,621	3.00%-5.00%	2029	10,041,484	-	646,535	9,394,949	656,535
2010 A Trust and Fund Loan	31,981,707	3.00%-5.00%	2029	25,392,994	-	1,690,928	23,702,066	1,705,928
2010 B Trust and Fund Loan	19,662,500	5.00%	2030	13,935,277	-	1,442,972	12,492,305	990,972
2014 Trust and Fund Loan	26,791,177	3.00%-5.00%	2032	24,455,254	-	-	24,455,254	1,315,478
2016 Trust and Fund Loan	2,975,000	3.00%-5.00%	2036	-	2,975,000	-	2,975,000	76,271
Total loans payable				<u>111,809,637</u>	<u>2,975,000</u>	<u>11,204,585</u>	<u>103,580,052</u>	<u>10,325,170</u>
Total bonds and loans payable				<u>\$ 265,544,637</u>	<u>\$ 108,310,000</u>	<u>\$ 109,804,585</u>	<u>\$ 264,050,052</u>	<u>\$ 22,945,170</u>

Summary of Future Maturities

Future maturities of bonds and loans payable are as follows:

	Principal	Interest	Total
2017	\$ 22,945,170	\$ 8,410,341	\$ 31,355,511
2018	23,768,769	7,622,074	31,390,843
2019	23,437,073	6,762,605	30,199,678
2020	22,304,377	5,879,861	28,184,238
2021	23,197,298	4,994,162	28,191,460
2022-2026	75,681,851	14,131,812	89,813,663
2027-2031	53,240,396	5,736,925	58,977,321
2032-2036	19,475,118	1,108,638	20,583,756
	<u>\$ 264,050,052</u>	<u>\$ 54,646,418</u>	<u>\$ 318,696,470</u>

The Commission has a note payable through the New Jersey Environmental Infrastructure construction loan program in the amount of \$15,249,457 as of December 31, 2016. The note will be repaid upon the issuance of future bonds.

H. SELF-INSURANCE

The Commission has established a reserve for self-insurance for general liability coverage to pay for claims up to their retention amount of \$500,000. At December 31, 2016, the reserve balance was \$5,088,277. There was \$1,066,000 in legal proceedings increasing the reserve for self-insurance for the year ended December 31, 2016.

I. PENSION PLAN

Description and Benefits

The Commission contributes to a cost-sharing multiple-employer defined benefit pension plan administered by Public Employees' Retirement System ("PERS") of New Jersey, which is part of the Division of Pensions in the Department of the Treasury, State of New Jersey. The state-administered funds were established by an Act of the State Legislature that assigns the authority to establish and amend benefit provisions to the plan's board of trustees. PERS issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained by writing to PERS and is also available on the State of New Jersey website.

Plan Description and Benefits

The vesting and benefit provisions are set by N.J.S.A. 43:15A. PERS provides retirement, death and disability benefits. All benefits vest after ten years of service, except for medical benefits, which vest after 25 years of service or under the disability provisions of 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 22, 2010
4	Members who were eligible to enroll on or after May 22, 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 with 25 or more years of service credit before age 62 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.

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

I. PENSION PLAN (CONTINUED)

Contributions

The local employers' contribution amounts are based on an actuarially determined rate, which includes the normal cost and unfunded accrued liability. Chapter 19, P.L. 2009 provided an option for local employers of PERS to contribute 50% of the normal and accrued liability contribution amounts certified for payments due in State fiscal year 2009. Such employers will be credited with the full payment and any such amounts will not be included in their unfunded liability. The actuaries will determine the unfunded liability of those retirement systems, by employer, for the reduced normal and accrued liability contributions provided under this law. This unfunded liability will be paid by the employer in level annual payments over a period of 15 years beginning with the payments due in the fiscal year ended June 30, 2012 and will be adjusted by the rate of return on the actuarial value of assets. The Commission did not elect to defer any payments pursuant to Chapter 19, P.L. 2009.

Schedule of Commission's Contributions

PERS - Last 10 Fiscal Years			
	2016	2015	2014
Contractually required contribution	\$ 4,888,391.00	\$ 4,631,152.00	\$ 4,326,850.00
Contributions in relation to the contractually required contribution	4,888,391.00	4,631,152.00	4,326,850.00
Commission's covered employee payroll	45,676,296.95	43,074,009.00	40,658,469.73
Contributions as a % of covered employee payroll	10.70%	10.75%	10.64%

Pension Liabilities and Expense

At December 31, 2016, the Commission had a liability of \$163,803,574 for its proportionate share of the net pension liability in PERS. The net pension liability was measured as of June 30, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. This liability is not required to be recorded based on the Commission's basis of accounting. The Commission's proportion of the net pension liability was based on a projection of the Commission's long-term share of contributions to the pension plan relative to the projected contributions of all participating members of the plan, actuarial determined. At December 31, 2016, the Commission's proportion was 0.5530703506%.

Schedule of Commission's Proportionate Share of Net Pension Liability

PERS - Last 10 Fiscal Years			
	2016	2015	2014
Commission's proportion of the net pension liability	0.5530703506%	0.53441689360%	0.5271575730%
Commission's proportionate share of net pension liability	\$ 163,803,574.00	\$ 119,965,884.00	\$ 103,497,093.00
Commission's covered-employee payroll	45,676,296.95	43,074,009.00	40,658,469.73
Commission's proportionate share of net pension liability as a % of payroll	358.62%	278.51%	254.55%
Total pension liability	273,629,886.49	230,384,878.48	205,968,216.08
Plan fiduciary net position	109,826,312.04	110,418,994.95	107,269,900.64
Plan fiduciary net position as a % of total pension liability	40.14%	47.93%	52.08%

In accordance with the Governmental Accounting Standards Board, the Commission is required to present ten years of detail in the above Schedule of Commission's Contributions and Schedule of Commission's Proportionate Share of Net Pension Liability, however, only three years of data are available at this time.

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

I. PENSION PLAN (CONTINUED)

Actuarial Assumptions

The total pension liability in the June 30, 2016, measurement was determined by an actuarial valuation as of July 1, 2015, which was rolled forward to June 30, 2016 using actuarial valuation used the following actuarial assumptions:

Inflation	3.08%
Salary increases: through 2026 (based on age)	1.65%-4.15%
Salary increases: thereafter (based on age)	2.65%-5.15%
Investment rate of return	7.65%

Components of Net Pension Liability

The components of the collective net pension liability of the participating employers as of June 30, 2016 were as follows:

	<u>Local</u>
Total pension liability	\$ 49,474,698,146
Plan fiduciary net position	<u>19,857,566,387</u>
Net pension liability	<u>\$ 69,332,264,533</u>

Pre-retirement mortality rates were based on the RP-2000 Employee Preretirement Mortality Table for male and female active participants. 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).

The actuarial assumptions used in the Jun 1, 2015 valuation were based on the results of an actuarial experience study for the period July 1, 2011 to June 30, 2014. It is likely that future experience will not exactly conform to these assumptions. To the extent that actual experience deviates from these assumptions, the emerging liabilities may be higher or lower than anticipated. The more the experience deviates, the larger the impact on future financial statements.

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

I. PENSION PLAN (CONTINUED)

In accordance with State statute, the long-term expected rate of return on plan investments (7.65% at June 30, 2016) is determined by the State Treasurer, after consultation with the Directors of the Division of Investment 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's target asset allocation as of June 30, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Cash	5.00%	0.87%
U.S. Treasuries	1.50%	1.74%
Investment Grade Credit	8.00%	1.79%
Mortgages	2.00%	1.67%
High Yield Bonds	2.00%	4.56%
Inflation-Indexed Bonds	1.50%	3.44%
Broad U.S. Equities	26.00%	8.53%
Developed Foreign Equities	13.25%	6.83%
Emerging Market Equities	6.50%	9.95%
Private Equity	9.00%	12.40%
Hedge Funds/Absolute Return	12.50%	4.68%
Real Estate (Property)	2.00%	6.91%
Commodities	0.50%	5.45%
Global Debt Ex US	5.00%	-0.25%
REIT	5.25%	5.63%

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

I. PENSION PLAN (CONTINUED)

Discount Rate

The discount rate used to measure the total pension liability was 3.98% as of June 30, 2016. The single blended discount rate was based on the long-term expected rate of return on pension plan investments of 7.65%, and a municipal bond rate of 2.85% as of June 30, 2016, 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 projected cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current last five years of contributions made in relation to the last five years of recommended 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 2034. Therefore, the long-term expected rate of return on plan investments was applied to projected benefit payments through 2034, and the municipal bond rate was applied to projected benefit payments after that date in determining the total pension liability.

Sensitivity of the Collective Net Pension Liability to Changes in the Discount Rate

The following presents the collective net pension liability of the participating employers as of June 30, 2016, calculated using the discount rate as disclosed above as well as what the collective net pension liability would be if it was calculated using a discount rate that is 1-percentage point lower or 1-percentage-point higher than the current rate:

	At 1% decrease (2.98%)	At current discount rate (3.98%)	At 1% increase (4.98%)
Local	<u>20,072,216,110</u>	<u>16,380,357,428</u>	<u>13,332,407,984</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources (excluding employer specific amounts) related to pensions will be recognized in pension expense as follows:

	Local
Year ending June 30:	
2017	\$ 973,139,719
2018	973,139,719
2019	1,127,414,999
2020	947,193,472
2021	301,470,137
Total	<u>\$ 4,322,358,046</u>

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

I. PENSION PLAN (CONTINUED)

Changes in Proportion

The previous amounts do not include employer specific deferred outflows of resources and deferred inflows of resources related to changes in proportion. These amounts should be recognized (amortized) by each employer over the average of the expected remaining service lives of all plan members, which is 5.57, 5.72 and 6.44 years for the 2016, 2015 and 2014 amounts, respectively.

J. OTHER POST EMPLOYMENT BENEFITS OTHER THAN PENSIONS

The Commission participates in a cost sharing multiple-employer defined post-retirement benefit plan (the "Plan"), which is administered by the State of New Jersey. The Plan provides continued health care benefits to employees retiring after twenty-five years of service. Benefits, contributions, funding and the manner of administration are determined by the State of New Jersey Legislature. The Division of Pensions and Benefits charges the Commission for its contributions. The total number of retired participants eligible for benefits was 236, 221 and 218 at December 31, 2016, 2015 and 2014, respectively.

The Commission's contribution to the Plan for the years ended December 31, 2016, 2015 and 2014 was \$3,931,605, \$3,637,107 and \$3,513,470, respectively.

Please refer to the State website, www.state.nj.us for more information regarding the Plan. The Plan's financial report may be obtained by writing to the State of New Jersey, Department of Treasury, Division of Pensions and Benefits, P.O. Box 295, Trenton, New Jersey 08625-0295.

K. CONCENTRATION OF RISK AND UNCERTAINTIES

For the year ended December 31, 2016, the Commission received approximately 45% of its total user charges from two customers, City of Newark 29% and City of Jersey City 16%.

L. UTILITY PURCHASE COMMITMENT

The Commission has entered into two futures contracts for electricity and natural gas in order to hedge energy costs. The contracts are for a term of thirty-six months, beginning January 2015, and will expire December 31, 2017.

M. COLLECTIVE BARGAINING AGREEMENTS

The Commission is a party in four (4) separate collective bargaining agreements ("agreement") covering various employees at the Commission. They are as follows:

- Local 1158 I.B.E.W.- Blue Collar covering January 1, 2014 – December 31, 2017
- Local 1158 I.B.E.W.- White Collar covering January 1, 2015 – December 31, 2017
- Supervisors Group – PVSC covering January 1, 2016 – December 31, 2017
- Professional Group- PVSC covering January 1, 2015 – December 31, 2017

The Commission expects to enter negotiations for contract renewals with each of its bargaining units during 2017.

PASSAIC VALLEY SEWERAGE COMMISSION

NOTES TO FINANCIAL STATEMENTS

N. LITIGATION

The Commission is involved in various litigation and claims arising out of its operations. While the ultimate results of these matters cannot be predicted with certainty, management of the Commission expects that the ultimate resolution of these matters will not have a material adverse effect on their financial position or results of operations.

O. FEMA FUNDING

The Commission is involved in discussions with FEMA to determine eligible recovery costs for substantial damage incurred by the Commission during the Superstorm Sandy event in October of 2012. During 2016, the Commission received \$17,006,894 in reimbursements from the State of New Jersey for recovery costs under FEMA, which were included in federal/state grants and loans receivable in the repair, replacement and improvement fund. All costs not covered by insurance or FEMA will be self-funded.