Allegheny County Sanitary Authority

Financial Statements and Required Supplementary and Supplementary Information

Years Ended December 31, 2016 and 2015
with Independent Auditor's Report

MaherDuessel
Certified Public Accountants

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ALLEGHENY COUNTY SANITARY AUTHORITY

YEARS ENDED DECEMBER 31, 2016 AND 2015

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Independent Auditor's Report

Board of Directors
Allegheny County Sanitary Authority

We have audited the accompanying financial statements of Allegheny County Sanitary Authority (Authority), as of and for the years ended December 31, 2016 and 2015, and the related notes to the 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. Those standards require that we plan and perform the audits 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 opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Authority as of December 31, 2016 and 2015, and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the pension plans' schedules, and other post-employment benefits information on pages i through xii, pages 31 through 33, and pages 34 through 35, respectively, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic 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 audits were conducted for the purpose of forming an opinion on the basic financial statements as a whole. The schedules of investments and other assets are presented for purposes of additional analysis and are not a required part of the financial statements.

The schedules of investments and other assets are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. The 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 information is fairly stated in all material respects in relation to the financial statements as a whole.

Maher Duessel

Pittsburgh, Pennsylvania
March 21, 2017

MANAGEMENT'S DISCUSSION AND ANALYSIS

AUDIT ASSURANCE

The unmodified (i.e., clean) opinion of our independent auditors, Maher Duessel, Certified Public Accountants, is included in this report. You will note that the Allegheny County Sanitary Authority (Authority) has included for 2016 this Management Discussion and Analysis section, which is in compliance with Statement No. 34 of the Governmental Accounting Standards Board.

FINANCIAL HIGHLIGHTS

Allegheny County (County) is located in Southwestern Pennsylvania and encompasses approximately 730 square miles of land. Founded in 1788, the County is the second most populated county in Pennsylvania with over 1.2 million residents. Roughly 25% of the County's residents live within the City of Pittsburgh. The Allegheny and Monongahela Rivers flow through Allegheny County to form the Ohio River in downtown Pittsburgh.

Economy

The County is the location of six Fortune 500 corporate headquarters. The County's 2016 Fortune 500 companies include: U.S. Steel (176), PNC Financial Services Group (192), PPG Industries (198), Kraft Heinz (272), Wesco International, Inc. (360) and Dick's Sporting Goods (393). The County has experienced substantial growth in areas such as technology, tourism, and health care. The County is also a strong supporter of its manufacturing industries and has traditionally been one of the major industrial centers of the world with its access to major fields of coal and shipping access to 8,000 miles of navigable rivers. The Port of Pittsburgh is the second largest inland port in the nation. There is annual benefit to the region of over $800 million dollars for the shipping and receiving of over 32 million tons of cargo.

The County has undergone an economic transformation spanning more than three decades with a shift from the manufacturing industry to the service and trade industries. Specifically, the new focus industries have been healthcare and life sciences, advanced manufacturing, energy, information and communications technology, and financial and business services. This shift is attributed to the continuing diversification of the employment base.

The region's health services sector employs nearly 140,000 people and is a robust network that is cultivating lifesaving technologies, regenerative medicine, and pharmaceuticals. The University of Pittsburgh Medical Center is a multi-billion-dollar global healthcare enterprise and is the region's top employer, with more than 43,000 employees. Bayer HealthCare, UnitedHealthcare, Allegheny Health Network, and Pittsburgh Mercy Health Systems are also part of this sector.

Nearly 1,500 technology firms including Google, Ansys, and Ariba have a presence within the County and employ some 26,000 people. A tech-savvy talent pipeline flowing from many area colleges and universities, and a robust network of organizations supporting financial innovation, are helping the region's knowledge-based economy to thrive.

According to the Pittsburgh Regional Alliance, Pittsburgh is the third largest advanced technology research and development center in the country. The Pittsburgh Technology Council has identified information technology, biomedical technology, environmental technology, and advanced manufacturing as the region's primary high-tech industries.

Global financial institutions with headquarters or major business units within the County include PNC Financial Services Group, The Bank of New York Mellon, Citizens Bank, Dollar Bank, Federated Investors, First Commonwealth Bank, Huntington National Bank, S&T Bank, TriState Capital, Key Bank, and First Niagara. Two global law firms, K&L Gates and Reed Smith, are based in the City of Pittsburgh, as is Buchanan, Ingersoll & Rooney and Jones Day – Pittsburgh as well as major insurance companies, including Highmark, UnitedHealthcare, and Cigna. Pittsburgh is also a branch office for the Cleveland District of the Federal Reserve System.

Adding to the County's diverse labor and business climate, some of the most prestigious health, educational, and cultural institutions in the country are located here. The County's colleges and universities include Carnegie Mellon University, Carlow College, Chatham College, Community College of Allegheny County, Duquesne University, La Roche College, Point Park University, Robert Morris University, the Art Institute of Pittsburgh, and the University of Pittsburgh. The County is also home to more than fifteen junior and technical colleges.

In 2016, non-manufacturing industries accounted for over 90% of the Pittsburgh metropolitan statistical area (MSA) employment base. The loss of once dominant, heavy water-use manufacturing such as steel and food processing, has had a negative impact on the Authority's residential users. Decline in regional manufacturing over the years has shifted a significant portion of the Authority's cost burden to residential users, who have declined as well over the past decade. This decline in consumption base, combined with outside regulatory emphasis on reducing overflows, will have a dramatic impact on rates for years to come.

- Billed flow for 2016 of 21,390,624 tgal (thousands of gallons) decreased by 590,726 tgal.

- In 2016, the Authority treated 71,289,400 tgal, of which 21,390,624 tgal was billed. Stated differently, the Authority billed for 30.01% of the water it treated. During 2015, the Authority treated 70,035,400 tgal, for which it billed 21,981,350 tgal, or 31.39% of what was treated was actually billed to customers. The difference between what is treated vs. that which is billed is attributed to direct inflow of storm water from combined sewer communities served and groundwater infiltration into the system from old and deteriorating sewer lines throughout the service area.

- The Authority maintained compliance with all debt covenants required by the governing Trust Indentures.

- Debt Service Coverage, when allowing for available Revenue funds on hand at the beginning of the year was 2.59, which exceeded the 1.10 Trust Requirements. In addition, stand-alone coverage without consideration to beginning balances was 1.54, which exceeded the required 1.00 Trust Requirement. Improved coverage ratios achieved in 2016 were the direct result of the 11% rate increase implemented effective January 1, 2016.

- On October 24, 2013, the Board of Directors (Board) adopted multi-year rate structure increasing customer service charges 17 percent in 2014, 11 percent in 2015, 11 percent in 2016, and 11 percent in 2017.

REQUIRED FINANCIAL STATEMENTS

The financial statement of the Authority report information about the Authority's use of accounting methods that are similar to those used by private sector companies. These statements offer short-term and long-term financial information about its activities.

The balance sheet includes all of the Authority's assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and obligations to Authority creditors (liabilities). It also provides the basis for computing rate of return, evaluating the capital structure of the Authority, and assessing the liquidity and financial flexibility of the Authority.

All of the current year's revenue and expenses are accounted for in the statement of revenues, expenses, and changes in net position. This statement measures the success of the Authority's operations over the past year and can be used to determine whether the Authority has successfully recovered all its costs through its sewage disposal rates and other fees. As required under the Authority's Trust Indenture, the Consulting Engineer, Chester Engineers, has reviewed the rate structure and agrees that an 11 percent rate increase in 2017 is necessary to meet requirements of the Trust Indenture and financial obligations imposed under the federal consent decree rate model structure.

The final required financial statement is the statement of cash flows. The primary purpose of this statement is to provide information about the Authority's cash receipts and cash payments during the reporting period. The statement reports cash receipts, cash payments, and net changes in cash resulting from operations, investing, and financing activities, and the change in cash during the reporting period.

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

SUMMARY OF ORGANIZATION AND BUSINESS

The Allegheny County Sanitary Authority was incorporated in May 1945 under the Commonwealth of Pennsylvania Municipality Authorities Act of 1945. Plant operations began on April 30, 1959. The Authority serves as the exclusive agency for the collection, transportation, and treatment of wastewater for the City of Pittsburgh and 82 neighboring municipalities. The Authority charges users for processing of wastewater at a flat rate per thousand gallons. Additional charges are levied for septage (solid waste removed from septic tanks), and industrial waste discharges into the system.

In addition to the main treatment sight located on the City of Pittsburgh's Northside, the Authority operates and maintains over 85 miles of interceptor sewers, and seven pumping or ejector stations throughout the service area. The Authority's service area covers over 310 square miles and includes portions of Washington and Westmoreland Counties in addition to the County.

The Authority's Articles of Incorporation (Articles), as amended, provide that the Authority's Board shall consist of seven members serving staggered five-year terms. Pursuant to the Articles, three members of the Board are appointed by the County, three are appointed by the City of Pittsburgh, and one is jointly appointed by the County and the City of Pittsburgh. The day-to-day operation of the Authority is the responsibility of the Executive Director, who is appointed by the Board to carry out its policies.

FINANCIAL ANALYSIS

The following comparative condensed financial statements and other selected information provides key financial data and indicators for management, monitoring, and planning.

Condensed Statement of Net Position (Balance Sheet)
(In Millions of Dollars)

	2016	2015	$ Change	% Change
Current assets	$147.84	$127.49	$20.35	15.96%
Restricted asets	123.87	140.67	-16.80	-11.94%
Prepaid bond costs	7.17	8.13	-0.96	-11.81%
Plant and equipment, net	595.37	586.25	9.12	1.56%
Capital fees recievable	0.04	0.08	-0.04	-50.00%
Net pension asset	0.00	4.70	-4.70	-100.00%
Total Assets	874.29	867.32	6.97	0.80%
Deferred Outflows of Resources	28.71	16.51	12.20	73.89%
Current liabilities	42.69	39.85	2.84	7.13%
Long-term liabilities	642.68	660.27	-17.59	-2.66%
Total Liabilites	685.37	700.12	-14.75	-2.11%
Deferred Inflow of Resources	4.10	5.42	-1.32	n/a
Net Position	$213.53	$178.29	$35.24	19.77%

Condensed Statements of Net Position (Balance Sheet)
(In Millions of Dollars)

	2015	2014	$ Change	% Change
Current assets	$127.49	$118.23	$9.26	7.83%
Restricted assets	140.67	65.14	75.53	115.95%
Unamortized prepaid bond costs	8.13	7.59	0.54	7.11%
Plant and equipment, net	586.25	585.11	1.14	0.19%
Capital fees receivable	0.08	0.11	-0.03	-27.27%
Net pension asset	4.70	0.92	3.78	410.87%
Total Assets	867.32	777.10	90.22	11.61%
Deferred Outflows of Resources	16.51	14.72	1.79	12.16%
Current liabilities	39.85	39.66	0.19	0.48%
Long-term liabilities	660.27	608.82	51.45	8.45%
Total Liabilities	700.12	648.48	51.64	7.96%
Deferred Inflows of Resources	5.42	0.00	5.42	n/a
Net Position	$178.29	$143.34	$34.95	24.38%

Condensed Statements of Revenues, Expenses, and Changes in Net Position
(In Millions of Dollars)

	2016	2015	$ Change	% Change
Operating revenues	$151.39	$142.83	$8.56	5.99%
Non-operating revenue	0.31	2.42	-2.11	-87.19%
Total revenues	151.70	145.25	6.45	4.44%
Operating expenses	70.59	63.56	7.03	11.06%
Non-operating expenses	24.60	26.62	-2.02	-7.59%
Depreciation	21.27	20.13	1.14	5.66%
Total expenses	116.46	110.31	6.15	5.58%
Net income (loss)	35.24	34.94	0.30	-0.86%
Net Position, Beginning of Year	178.29	143.35	34.94	24.37%
Net Position, End of Year	$213.53	$178.29	$35.24	19.77%

Condensed Statements of Revenues, Expenses, and Changes in Net Position (In Millions of Dollars)

	2015	2014	$ Change	% Change
Operating revenues	$142.83	$126.63	$16.20	12.79%
Non-operating revenue	2.42	0.95	1.47	154.74%
Total revenues	145.25	127.58	17.67	13.85%
Operating expenses	63.56	61.48	2.08	3.38%
Non-operating expenses	26.62	28.38	-1.76	-6.20%
Depreciation	20.13	21.30	-1.17	-5.49%
Total expenses	110.31	111.16	-0.85	-0.76%
Net income (loss)	34.94	16.42	18.52	112.79%
Net Position, Beginning of Year	143.35	126.93	16.42	12.94%
Net Position, End of Year	$178.29	$143.35	$34.94	24.37%

OTHER SELECTED INFORMATION

Selected Data:	2016	2015	Difference	%Change
Authorized employees	464	431	33	7.66%
Actual employees at year-end	394	373	21	5.63%
Wastewater treated (billons of gallons)	71,289	70,035	1,254	1.79%
Wastewater billed (billions of gallons)	21,390	21,981	-591	-2.69%
Percentage of billed/treated wastewater	30.00%	31.39%	-1.39%	-4.43%
Rates:				
Charge per 1,000 gallons of water consumption	$6.23	$5.61	$0.62	11.05%
Account service charge per bill rendered	$13.07	$11.78	$1.29	10.95%
Average customer bill:				
Per year	$376.24	$338.84 *	37.40	11.04%
Per quarter	94.06	84.71 *	9.35	11.04%
Per month	31.35	28.24 *	3.11	11.01%

* Based on 13,000 gallons per quarter

Selected Data:	2015	2014		Difference	% Change
Authorized employees	431	413		18	4.36%
Actual employees at year-end	373	352		21	5.97%
Wastewater treated (billons of gallons)	70,035	70,016		19	0.03%
Wastewater billed (billions of gallons)	21,981	21,523		458	2.13%
Percentage of billed /treated wastewater	31.39%	30.74%		0.65%	2.10%
Rates:					
Charge per 1,000 gallons of water consumption	$5.61	$5.05		$0.56	11.09%
Account service charge per bill rendered	$11.78	$10.61		$1.17	11.03%
Average customer bill:					
Per year	$338.84	$305.04	*	33.80	11.08%
Per quarter	84.71	76.26	*	8.45	11.08%
Per month	28.24	25.42	*	2.82	11.08%

* Based on 13,000 gallons per quarter

GENERAL TRENDS AND SIGNIFICANT EVENTS

The Authority entered into a Consent Decree with the United States Environmental Protection Agency (U.S. EPA), Pennsylvania Department of Environmental Protection (DEP), and the Allegheny County Health Department on January 23, 2008. The Consent Decree requires reduction of Combined Sewer Overflows and elimination of Sanitary Sewer Overflows by September 30, 2026. The Final Wet Weather Control Plan (WWCP) was submitted for regulatory review and approval on January 23, 2013. The overall cost of the WCCP of $3.6 billion resulted in end user rates exceeding a regional residential indicator of 2%. The Authority therefore also submitted an affordable Interim Wet Weather Plan (IWWP), which has been the focus of negotiations with the agencies over the past three years.

Appendix Z to the Consent Decree summarizes those negotiations which the Authority believes will be acceptable to the agencies. Below is a summary of Appendix Z:

Summary of Appendix Z

The Authority will complete an IWWP by December 31, 2036. Because many uncertainties remain regarding the most optimal mix of the Authority and municipal green and grey infrastructure control measures, an adaptive management framework is necessary to provide for expeditious and affordable program implementation. This framework will provide opportunities to evaluate and integrate green infrastructure and other flow management practices, while prioritizing the regionalization of inter-municipal trunk sewers and key grey infrastructure projects where most cost-effective.

Because the identification of specific flow management project commitments requires ongoing coordination with customer municipalities, the IWWP is premised on a phased implementation framework that supports early implementation of green projects, demonstration of effectiveness, and the substitution or reduction of grey infrastructure where flow management measures can be shown to provide equivalent system-wide overflow reduction performance. Accordingly, the framework includes adaptive management milestones where new information can be used to propose modifications to the projects and implementation schedules identified herein.

The IWWP is divided into three phases designed to support the adaptive management framework.

Phase 1 projects include highly effective treatment plant expansion projects, preliminary planning projects that will inform adaptive Phase 2 and 3 projects, and existing infrastructure inspection and rehabilitation. Additional detail is as follows:

- **Regional Flow Optimization Strategy and Preliminary Planning.**
  The Authority will work jointly with its customer municipalities to assess the effectiveness of green infrastructure, stream inflow removal, inflow/infiltration reduction, and existing system asset management through preliminary planning and demonstration projects. The resulting regional flow optimization strategy will identify flow management measures to be adaptively incorporated into Phases 2 and 3 and establish the basis of design for Phase 2 and Phase 3 tunnel projects, including any appropriate downsizing. The preliminary basis of design report will include refined tunnel and consolidation sewer construction schedules.

- **Woods Run Wastewater Treatment Plant Expansion.**
  This series of projects will expand the wet weather treatment capacity to a minimum of 480 mgd.

- **Existing Infrastructure Inspection/Rehabilitation.**
  The Authority will continue its operation and maintenance practices for existing infrastructure, including establishing re-inspection and priority rehabilitation schedules.

Phase 2 projects include high priority conveyance and treatment system improvements that are dependent on Phase 1 preliminary planning to proceed. Depending on the findings of Phase I, these projects include:

- A wet weather pumping station,
- Expanded primary treatment,
- The Ohio River tunnel segment, including crossings to the existing Chartiers Creek and Saw Mill Run interceptor systems, and
- Cost-effective optimization of the Authority's existing tunnel network.

Phase 3 projects represent adaptive projects that may be influenced and modified based on the outcome of Phase 1 and Phase 2 evaluations and demonstration projects.

The IWWP currently includes an estimated $1.8 billion (in 2010 dollars) in identified Authority projects. It is expected that the Regional Flow Optimization Strategy, the regionalization of Intermunicipal Trunk Sewers and Associated Facilities, Municipal Source Reduction Studies, and Municipal Source Reduction Agreements will identify additional Authority and municipal projects. The established adaptive management framework includes provisions for revising the IWWP to incorporate these enhancements. However, the Authority will remain committed to close coordination with its customer municipalities in updating regional financial capability analyses so that proposed IWWP revisions do not result in a regional residential indicator greater than 2%.

FINANCIAL CONDITION

Gross operating revenues increased by almost $8.6 million as a direct result of an 11% increase in customer rates. The 11% increase is the third of a four-year rate increase program, the excess revenue of which will be used for self-funding of capital assets and assisting our member municipalities in funding source control and green infrastructure projects. Operating expenditures increased by $7 million largely based on the increased staffing levels in order to implement the Federal Consent Decree, as well as wage inflation and healthcare cost pressure.

The Authority achieved a debt service coverage ratio of 259 percent with consideration of amounts in the Revenue Fund at the beginning of the year in excess of one-fourth of the Current Operating Expenses.

Debt service coverage without consideration of beginning Revenue Balances was 154 percent. The relative strength of this and the prior year's coverage resulted in affirmation of the Standard & Poor's A/Stable bond rating on the Authority's existing and 2016 Bond Series. Moody's also affirmed its A1 rating and assigned a stable outlook to the existing debt.

RESULTS OF OPERATIONS

Operating Revenue:

As noted above, implementation of an 11% rate increase effective January 1, 2016 resulted in an $8.6 million increase in gross revenues. Billed water consumption decreased 591,000 tgal from that of the previous year. This decrease is modest in size, and offsets last year's first consumption increase in twenty years of 450,000 tgals. Consumption has been relatively stable over the past three years after decades of losses in heavy water use manufacturing and consumer product efficiencies.

All of the Authority's operating revenue was derived from customer billing for sewage treatment service; the Authority receives no subsidies. The Authority, the City of Pittsburgh, and 82 other municipalities in and around Allegheny County have entered into agreements (Standard Municipal Agreements) under which the Authority is designated (within its service area) the exclusive agent of the respective municipality to furnish sewage treatment and disposal service.

Each municipality contracting with the Authority is given two options with respect to billing, “Direct” or “Lump-sum.” With the Direct method of billing, accounts not paid within 60 days become the responsibility of the community; thus, the Authority insures no bad debt. Under the Direct method, the Authority bills and collects for its services directly from the individual customer. Under the Lump-sum method, consumption for the entire community is compiled and billed to the municipality, who in turn bills its own residents. All but three municipalities utilize this method of billing in order to attach fees for local sewer infrastructure maintenance. Under both scenarios, the Authority is guaranteed full payment for services.

Operating Expenses:

Operating expenses in 2016 of $70.6 million were $7 million higher than 2015 operating expenses of $63.6 million. Increases in operating costs were primarily the result of increased wage and healthcare funding costs, support provided to the 3 Rivers Wet Weather Program, staffing increases, and public relations costs associated with the implementation of the Federal Consent Decree.

Depreciation and Non-operating Expenses:

Over the past decade, the Authority has placed into service almost $362 million in capital projects. Depreciation expense remains stable as plant expansion projects and improvement replace and upgrade facilities that have been in service for almost 60 years.

Non-operating Revenues:

Interest earnings on the Authority’s revenue and non-restricted capital facilities funds remain anemic, as interest rates on money market and treasury holdings continue to earn at record lows throughout the country.

Litigation Contingency:

As noted above, the Authority has finalized an agreement with the U.S. EPA, Pennsylvania DEP, and the Allegheny County Health Department (Agencies) regarding wet weather overloads in the sanitary sewer system. The agreement called for the payment of civil penalties in the amount of $400,000 to each of the three noted agencies. As of January 8, 2009, all of the above-noted Agencies have been paid.

Additional penalties may be incurred if the Authority fails to meets specific project deadlines as detailed in the agreement.

Debt:

On September 8, 2016, the Authority issued $106,205,000 of Sewer Revenue Refunding Bonds at an all in interest cost of 3.05%. Bond proceeds were used for advance refunding of the Series 2007 Bonds. Cash flow savings from the refunding amounted to $33.1 million and a present value savings of $24.3 million. When combined with the 2015 current refunding of the outstanding Series 2005 Bonds, the Authority has saved over $66 million in debt service over the past two years.

At year-end, the Authority had $651.4 million in long- and short-term debt.

More detailed information about the Authority's long-term debt is presented in the notes to financial statements.

FINAL COMMENTS

The Authority expects to complete negotiation and finalize the Federal Consent Decree with the U.S. EPA, Pennsylvania DEP, and the Allegheny County Health Department early in 2017. During 2016, much was accomplished in discussion with the Agencies, including recognition that Sewer Regionalization, implementation of a Flow Reduction Program, and the use of adaptive management to analyze the benefits of substituting grey for green infrastructure projects would have a positive impact not only on the cost, but quality of life in the region as well. Economies of scale resulting from the potential transfer of over 200 miles of intermunicipal trunk lines and implementation of a flow control program which assists our municipal members in implementing green solutions in order to keep extraneous water out of the system, have the potential to save millions of rate payer dollars while creating sustainable green jobs.

You have the opportunity to become an informed participant in this program. Become familiar with the Consent Decree by reviewing it on-line at *www.alcosan.org* or by contacting our Public Relations Department for a copy.

CONTACTING THE AUTHORITY'S FINANCIAL MANAGER

This financial report is designed to provide our citizens, customers, and creditors with a general overview of the Authority's finances and to demonstrate the Authority's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the Allegheny County Sanitary Authority's Director of Finance and Administration, 3300 Preble Avenue, Pittsburgh, PA 15233.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF NET POSITION

DECEMBER 31, 2016 AND 2015

Assets and Deferred Outflows of Resources

	2016	2015
Assets:		
Current assets:		
Cash and cash equivalents	$ 91,684,772	$ 72,901,655
Accounts receivable:		
Billed sewer revenue	14,582,462	14,434,379
Unbilled sewer revenue	35,405,033	34,210,168
Other	40,361	101,179
Other current assets	6,129,723	5,840,346
Total current assets	147,842,351	127,487,727
Restricted/designated assets:		
Cash and cash equivalents	92,275,291	66,313,733
Investments	31,442,508	74,050,644
Accrued interest receivable	156,762	304,106
Total restricted/designated assets	123,874,561	140,668,483
Prepaid bond costs	7,165,980	8,131,898
Nondepreciable capital assets:		
Land	5,344,896	5,305,562
Construction in progress	30,816,357	38,531,262
Total nondepreciable capital assets	36,161,253	43,836,824
Depreciable capital assets - at cost, net of accumulated depreciation	559,206,163	542,416,213
Total	595,367,416	586,253,037
Capital fees receivable	40,000	78,000
Net pension asset	-	4,698,359
Total Assets	874,290,308	867,317,504
Deferred Outflows of Resources:		
Related to pensions	19,454,240	8,803,215
Refunding adjustment	9,259,327	7,712,231
Total Deferred Outflows of Resources	28,713,567	16,515,446
Total Assets and Deferred Outflows of Resources	$ 903,003,875	$ 883,832,950

Liabilities, Deferred Inflows of Resources, and Net Position

	2016	2015
Liabilities:		
Current liabilities:		
Accounts payable	$ 8,192,941	$ 7,166,004
Accrued liabilities:		
Compensated absences	4,543,017	4,151,911
Salaries and wages	1,315,045	868,064
Accrued interest on bonds	2,007,614	2,547,877
Reserve for litigation	2,371,900	2,371,900
Pretreatment advance payments	53,300	64,200
Current maturities of sewer revenue bonds	24,205,000	22,676,251
Total current liabilities	42,688,817	39,846,207
Long-term liabilities:		
Other post-employment benefits	5,173,881	4,456,371
Net pension liability	10,265,284	2,866,938
Sewer revenue bonds - less current maturities	572,730,000	604,270,000
Unamortized bond premium	54,514,841	48,676,841
Net long-term debt	627,244,841	652,946,841
Total long-term liabilities	642,684,006	660,270,150
Total Liabilities	685,372,823	700,116,357
Deferred Inflows of Resources:		
Related to pensions	4,102,436	5,424,961
Net Position:		
Net investment in capital assets	77,051,463	70,414,465
Unrestricted	136,477,153	107,877,167
Total Net Position	213,528,616	178,291,632
Total Liabilities, Deferred Inflows of Resources, and Net Position	$ 903,003,875	$ 883,832,950

The notes to financial statements are an integral part of this statement.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2016 AND 2015

	2016	2015
Operating Revenues	$ 151,390,618	$ 142,826,497
Operating Expenses:		
Treatment	44,955,562	42,409,653
Intercepting sewer systems	5,896,400	5,296,080
Upper Allegheny system	451,733	414,460
Administrative and engineering	12,366,247	8,947,742
Billing and collecting	3,348,876	3,313,389
Management information systems	3,571,943	3,178,302
Total operating expenses before depreciation	70,590,761	63,559,626
Operating Income Before Depreciation	80,799,857	79,266,871
Depreciation	21,271,326	20,127,859
Operating Income	59,528,531	59,139,012
Non-operating Revenues (Expenses):		
Interest income, net of amounts capitalized	310,794	62,479
Interest expense on bonds, net of amounts capitalized	(23,172,637)	(25,988,940)
Amortization of prepaid bond costs	(1,306,549)	(631,274)
Change in value of pension related items	(123,155)	2,356,751
Total non-operating revenues (expenses)	(24,291,547)	(24,200,984)
Change in Net Position	35,236,984	34,938,028
Net Position:		
Beginning of year	178,291,632	143,353,604
End of year	$ 213,528,616	$ 178,291,632

The notes to financial statements are an integral part of this statement.

ALLEGHENY COUNTY SANITARY AUTHORITY

STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2016 AND 2015

	2016	2015
Cash Flows From Operating Activities:		
Cash received from customers	$ 150,097,588	$ 137,682,736
Cash paid to suppliers	(22,449,071)	(20,345,655)
Cash paid to employees	(47,091,071)	(42,757,804)
Net cash provided by (used in) operating activities	80,557,446	74,579,277
Cash Flows From Capital and Related Financing Activities:		
Interest paid on bonds	(28,388,676)	(27,541,613)
Principal paid on bonds	(24,185,000)	(25,739,182)
Proceeds from debt issues	118,808,489	301,141,620
Payments to refund bonds	(117,955,774)	(224,398,416)
Prepaid bond costs	(1,261,604)	(2,612,127)
Acquisition and construction of capital assets	(26,906,499)	(16,614,016)
Net cash provided by (used in) capital and related financing activities	(79,889,064)	4,236,266
Cash Flows From Investing Activities:		
Purchase of investment securities	-	(74,142,703)
Proceeds from sale and maturities of investment securities	42,618,245	31,989,692
Interest earnings	1,458,048	260,682
Net cash provided by (used in) investing activities	44,076,293	(41,892,329)
Increase (Decrease) in Cash and Cash Equivalents	44,744,675	36,923,214
Cash and Cash Equivalents:		
Beginning of year, including $66,313,733 and $33,083,333, respectively, in restricted accounts	139,215,388	102,292,174
End of year, including $92,275,291 and $66,313,733, respectively, in restricted accounts	$ 183,960,063	$ 139,215,388
Noncash Capital and Related Financing Activities:		
Property, plant, and equipment additions reflected in accounts payable	$ 1,242,538	$ 1,333,201
Reconciliation of Operating Income to Net Cash Provided by (Used in) Operating Activities:		
Operating income	$ 59,528,531	$ 59,139,012
Adjustments to reconcile operating income to net cash provided by (used in) operating activities:		
Depreciation	21,271,326	20,127,859
Change in operating assets and liabilities:		
Accounts receivable	(1,282,130)	(5,146,736)
Other current assets	(289,377)	(415,401)
Accounts payable	(215,601)	(92)
Accrued liabilities	838,087	141,126
Other post employment benefits	717,510	730,534
Pretreatment advance payments	(10,900)	2,975
Net adjustments	21,028,915	15,440,265
Net cash provided by (used in) operating activities	$ 80,557,446	$ 74,579,277

The notes to financial statements are an integral part of this statement.

1. ORGANIZATION

The Allegheny County Sanitary Authority (Authority) was incorporated in May 1945 under the Commonwealth of Pennsylvania Municipality Authorities Act of 1945. The Authority serves as the exclusive agency for the collection, transportation, and treatment of wastewater for the City of Pittsburgh and 82 neighboring municipalities. The Authority charges users for processing of wastewater at applicable rates. Additional charges are levied for septage (solid waste removed from septic tanks) and industrial waste discharges into the system.

In evaluating the Authority as a primary government in accordance with Governmental Accounting Standards Board (GASB) Statement No. 61, *"The Financial Reporting Entity,"* management has addressed all potential component units. Consistent with this statement, the criteria used by the Authority to evaluate possible inclusion of related entities within its reporting entity are financial accountability and the nature and significance of the relationship.

Upon review of the criteria above, the Authority determined that there were no potential component units that met the criteria for inclusion in the reporting entity.

The Authority operates as a stand-alone entity governed by a Board of Directors appointed by the City of Pittsburgh and County of Allegheny. Neither the City of Pittsburgh nor the County of Allegheny appoints a voting majority of the Authority's Board of Directors. The Authority's pension plans, the Management Employees Plan and Union Employees Plan (Plans), are excluded from the Authority's financial statements because the Plans are governed by independent boards composed primarily of participants in the Plans, the Authority does not directly participate in the management of the Plans, and there are no current requirements to included fiduciary funds on standalone business type financials.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Measurement Focus

The Authority uses "income determination" as its measurement focus. Accordingly, all assets and liabilities are included on the balance sheet and net position reflects the economic net worth of the Authority. The operating statement reflects the change in total economic net worth for the period, presented through revenues and expenses of the Authority.

Basis of Accounting

The financial statements of the Authority for the years ended December 31, 2016 and 2015 have been prepared on the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned and expenses are recognized when incurred.

Cash and Cash Equivalents

For purposes of the statements of cash flows, the Authority considers all highly liquid investments with a maturity of three months or less when purchased to be cash and cash equivalents.

Investments

Investments are recorded at fair value at December 31, 2016 and 2015.

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

Accounts Receivable

Accounts receivable consist of amounts due from customers, lump-sum billings to municipalities (which in turn bill customers individually), and estimated unbilled services since the previous billing.

Under the terms of the respective servicing agreements, each local municipality is responsible for the payment to the Authority and subsequent collection of individual customer billings outstanding over 60 days. Accordingly, an allowance for doubtful accounts is currently not considered necessary by management.

Prepaid Bond Costs

Certain prepaid bond issue and surety bond costs are deferred and amortized over the life of the related outstanding bonds. The original amortization periods are as follows:

Description	Amortization Period
1991 Bonds	25 years, 10 months
1993 Bonds	23 years, 8 months
Surety Bond	27 years, 6 months
2007 Bonds	30 years
2010 Bonds	30 years
2011 Bonds	9 years
2013 Bonds	31 years
2015 Bonds	30 years
2016 Bonds	21 years

Refunding Adjustment

In accordance with GASB pronouncements, the excess of the reacquisition price over the net carrying amount of debt refunded with proceeds from Series 2016, Series 2015, Series 2011, Series 2010, and Series 2002 Bonds were recorded as refunding adjustments. The refunding adjustments are being amortized using the effective interest method over the originally scheduled life of the defeased issues, which extend to 2037, 2045, 2040, 2030, and 2019, respectively. The unamortized balances are reflected as deferred outflows of resources.

Capital Assets

Capital assets are recorded at cost which includes, when appropriate, interest cost incurred on qualifying assets during the construction period.

Depreciation of fixed assets is provided for on the straight-line method based on the estimated useful lives of the various classes of assets. Maintenance and repairs are charged to expense as incurred. Estimated useful lives of major classes of assets are as follows:

Land improvements	40 years
Buildings and improvements	50 years
Utility plant in service	60 years
Machinery and equipment	3-20 years

The cost of the study for a potential capital project is capitalized in construction in progress. Upon commencement of the related capital project, the cost of the study is allocated to the project. Upon the Authority's final determination that a project is not viable, the cost of the study is expensed.

Deferred Outflows and Inflows of Resources

In addition to assets and liabilities, the statement of net position will sometimes report separate sections for deferred outflows and deferred inflows of resources. Deferred outflows of resources represents a consumption of net position that applies to a future period while deferred inflows of resources represents an acquisition of net position that applies to future periods.

Compensated Absences

Vested or accumulated vacation and sickness leave are recorded as a liability and expensed as the benefits accrue to employees.

Pension Plans

Substantially all full-time employees of the Authority are enrolled in one of two single-employer defined benefit pension plans. For purposes of measuring the net pension liability, deferred outflows of resources related to pensions, and pension expense, information about the fiduciary net position of the pension plans, as well as additions to and deductions from the pension plan fiduciary net position have been determined using the economic resources measurement focus and accrual basis of accounting. Employer contributions are recognized when due and the employer has a legal requirement to provide the contributions. Investments are reported at fair value.

Post-retirement Benefits

The Authority provides certain health insurance benefits to retirees. The costs of these benefits are recognized in accordance with accounting principles generally accepted in the United States of America and are funded when paid.

Deferred Compensation Plan

The Authority offers its employees a deferred compensation plan (plan) created in accordance with Internal Revenue Code Section 457. The plan, available to all employees, permits them to defer a portion of their salaries until future years. Participation in the plan is optional. The deferred compensation is not available to the employee until termination, retirement, death, or unforeseeable emergency. At December 31, 2016 and 2015, all amounts of compensation deferred under the plan, all property and rights purchased with those amounts, and all income attributable to those amounts, are held in trust solely for the benefit of the participants. Investments are managed by the plan's trustee under several investment options selected by the participant. Under the provisions of GASB Statement No. 32, *"Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans,"* the plan is not required to be included in the Authority's financial statements.

Use of 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 reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Management makes significant estimates regarding the amount of unbilled accounts receivable, reserves for accrued litigation, actuarial pension liabilities, other post employment benefit liabilities and environmental contingencies.

Adopted Pronouncements

The requirements of the following GASB statements were adopted for the Authority's financial statements:

GASB Statement No. 72, *"Fair Value Measurement and Application,"* addresses accounting and financial reporting issues related to fair value measurements. The disclosure requirements of this statement have been incorporated into these financial statements.

GASB Statement No. 76, "*Hierarchy of Generally Accepted Accounting Principles for State and Local Governments,"* identifies the hierarchy of generally accepted accounting principles (GAAP), reduces this hierarchy to two categories of authoritative GAAP, and addresses the use of authoritative and nonauthoritative literature in the event that the accounting treatment for a transaction or other event is not specified within a source of authoritative GAAP. This statement supersedes GASB Statement No. 55.

GASB Statement No. 79, *"Certain External Investment Pools and Pool Participants,"* addresses accounting and financial reporting for certain external investment pools and pool participants. The disclosure requirements of this statement have been incorporated into these financial statements.

Pending Pronouncements

GASB has issued statements that will become effective in future years, including Statement Nos. 73 (Pensions not in Scope of GASB 68), 74 (OPEB Plans), 75 (OPEB Employer), 80 (Component Units), 81 (Split-Interest Agreements), 82 (Pensions), 83 (Asset Retirement Obligations), and 84 (Fiduciary Activities). Management has not yet determined the impact of these statements on the financial statements.

3. Revenue Bonds

In September 1992, the Authority issued $101,185,000 of Current Interest Bonds (1992 Bonds) intended to finance a 1992 capital improvement program.

An irrevocable trust was established in 1994 to defease $34,160,000 of the 1992 Bonds. An irrevocable trust was established in 2001 to defease an additional $51,710,000 of the 1992 Bonds. An irrevocable trust was established in 2002 to defease the remaining 1992 Bonds. Neither the trusts, nor the defeased obligations are included on the Authority's statements of net position. The amount of defeased bonds outstanding at December 31, 2016 and 2015 was $0 and $11,295,000, respectively.

In March 1993, the Authority issued $9,608,540 principal value ($37,625,000 maturity value) of Compound Interest Bonds and $32,470,000 of Current Interest Bonds (1993 Bonds). The proceeds from the bond issuance were used to advance refund the 1991 C Bonds, which were called in 2001.

An irrevocable trust was established in 1994 to defease $3,580,000 maturity value of the 1993 Compound Interest Bonds. Neither the trust, which has a sufficient amount on deposit to retire the $3,580,000 of 1993 Bonds at maturity, nor the obligation are included on the Authority's statements of net position. The maturity value of defeased bonds outstanding at December 31, 2016 and 2015 was $0 and 3,580,000, respectively. During 2003, the 1993 Current Interest Bonds were refunded.

The 1993 Compound Interest Bonds bear interest at 6.10% compounded semiannually which is paid only at maturity of such 1993 Bonds. The 1993 Compound Interest Bonds matured on December 1, 2016.

At December 31, 2016 and 2015, the 1993 Bonds payable consisted of $0 and $3,937,446, respectively, plus accumulated interest of $0 and $11,403,805, respectively.

On July 12, 2007, the Authority issued $114,495,000 of Sewer Revenue Bonds Series of 2007, called the 2007 Bonds. The proceeds of the 2007 Bonds were used to provide funds for the financing of a portion of the Authority's capital budget for 2007 through 2009, and funding capitalized interest and a debt service reserve fund account.

The 2007 Bonds were issued at a bond premium of $3,014,408, which is being amortized as an adjustment to interest expense over the life of the bonds using the effective interest method.

The 2007 Bonds bear interest at rates ranging from 3.85% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. Stated maturities for the 2007 Bonds are at various face amounts on December 1 of each year beginning December 1, 2010 through 2037. The 2007 Bonds were advance refunded during 2016, and an irrevocable trust was established to defease $112,845,000 of the 2007 Bonds. Neither the trust, nor the defeased obligation, are included on the Authority's statements of net position. The amount of defeased bonds outstanding at December 31, 2016 was $112,540,000. The amount of 2007 Bonds outstanding at December 31, 2015 was $112,845,000.

On October 1, 2010, the Authority issued $121,660,000 of Sewer Revenue Bonds Series of 2010, called the 2010 Bonds. The proceeds of the 2010 Bonds were used to provide funds for the financing of a portion of the Authority's capital budget for 2011 through 2013, current refunding of the 1997 bonds, current refunding of the 2000 bonds, payment of a PennVest loan, and funding capitalized interest.

The 2010 Bonds were issued at a bond premium of $5,113,802, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2010 Bonds bear interest at rates ranging from 1.50% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. Stated maturities for the 2005 Bonds are at various face amounts on December 1 of each year beginning December 1, 2010 through 2012 and June 1, 2013 through 2040. The 2010 Bonds, which have a final maturity date of June 1, 2040, are subject to redemption prior to maturity. At December 31, 2016 and 2015, the 2010 Bonds payable consisted of $105,830,000 and $106,030,000, respectively.

On October 1, 2011, the Authority issued $92,250,000 of Sewer Revenue Bonds Refunding Series of 2011, called the 2011 Bonds. The proceeds of the bonds were used to currently refund all of the Authority's outstanding Sewer Revenue Bonds Refunding Series of 2001.

The 2011 Bonds were issued at a premium of $12,066,763, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2011 Bonds bear interest at rates ranging from 1.50% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2011 Bonds, which have a final maturity date of December 1, 2019, are subject to redemption prior to maturity. At December 31, 2016 and 2015, the 2011 Bonds payable consisted of $65,755,000 and $69,485,000, respectively.

On December 19, 2013, the Authority issued $64,755,000 of Sewer Revenue Bonds Series of 2013, called the 2013 Bonds. The proceeds of the 2013 Bonds were used to provide additional funding for the Authority's capital projects in 2014 and 2015.

The 2013 Bonds were issued at a bond premium of $2,711,736, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2013 Bonds bear interest at rates ranging from 3.50% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2013 Bonds, which have a final maturity date of December 1, 2044, are subject to redemption prior to maturity. At December 31, 2016 and 2015, the 2013 Bonds payable was $64,755,000.

On September 3, 2015, the Authority issued $265,270,000 of Sewer Revenue Bonds Series of 2015, called the 2015 Bonds. The proceeds of the bonds were used to currently refund all of the Authority's outstanding Sewer Revenue Bonds Refunding Series of 2005 and to provide additional funding for the Authority's capital projects.

The 2015 Bonds were issued at a premium of $36,708,408, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2015 Bonds bear interest at rates ranging from 2.00% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2015 Bonds, which have a final maturity date of December 1, 2019, are subject to redemption prior to maturity. At December 31, 2016 and 2015, the 2015 Bonds payable consisted of $255,390,000 and $258,490,000, respectively.

On September 8, 2016, the Authority issued $106,205,000 of Sewer Revenue Bonds Refunding Series of 2016, called the 2016 Bonds. The proceeds of the bonds were used to advance refund all of the Authority's outstanding Sewer Revenue Bonds Refunding Series of 2007 and to provide additional funding for the Authority's capital projects.

The 2016 Bonds were issued at a premium of $13,012,378, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2016 Bonds bear interest at rates ranging from 0.90% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2016 Bonds, which have a final maturity date of December 1, 2037, are subject to redemption prior to maturity. At December 31, 2016, the 2016 Bonds payable consisted of $105,205,000.

This refunding resulted in an economic gain to the Authority of approximately $24.3 million and a decrease to the debt service payments of approximately $33.1 million. In connection with the 2016 debt refunding, the Authority recorded deferred refunding adjustments of $2.7 million, which are being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

A summary of long-term debt is as follows for the years ended December 31, 2016 and 2015, respectively:

	Balance 1/1/2016	Accretions/ New Issue	Retired	Balance 12/31/2016	Unamortized Premium	Bonds Payable	Current Portion
1991 Series	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1993 Series	15,341,251	-	(15,341,251)	-	-	-	-
2005 Series	-	-	-	-	-	-	-
2007 Series	112,845,000	-	(112,845,000)	-	-	-	-
2010 Series	106,030,000	-	(200,000)	105,830,000	3,755,600	109,585,600	200,000
2011 Series	69,485,000	-	(3,730,000)	65,755,000	2,683,868	68,438,868	20,845,000
2013 Series	64,755,000	-	-	64,755,000	2,325,972	67,080,972	-
2015 Series	258,490,000	-	(3,100,000)	255,390,000	32,920,745	288,310,745	2,910,000
2016 Series	-	106,205,000	(1,000,000)	105,205,000	12,828,656	118,033,656	250,000
Total	$ 626,946,251	$ 106,205,000	$ (136,216,251)	$ 596,935,000	$ 54,514,841	$ 651,449,841	$ 24,205,000

	Balance 1/1/2015	Accretions/ New Issue	Retired	Balance 12/31/2015	Unamortized Premium	Bonds Payable	Current Portion
1991 Series	$ 3,097,606	$ -	$ (3,097,606)	$ -	$ -	$ -	$ -
1993 Series	23,003,145	894,683	(8,556,577)	15,341,251	-	15,341,251	15,341,251
2005 Series	219,450,000	-	(219,450,000)	-	-	-	-
2007 Series	113,145,000	-	(300,000)	112,845,000	2,031,030	114,876,030	305,000
2010 Series	106,035,000	-	(5,000)	106,030,000	3,973,177	110,003,177	200,000
2011 Series	76,485,000	-	(7,000,000)	69,485,000	4,237,935	73,722,935	3,730,000
2013 Series	64,755,000	-	-	64,755,000	2,456,739	67,211,739	-
2015 Series	-	265,270,000	(6,780,000)	258,490,000	35,977,960	294,467,960	3,100,000
Total	$ 605,970,751	$ 266,164,683	$ (245,189,183)	$ 626,946,251	$ 48,676,841	$ 675,623,092	$ 22,676,251

The 1993 and 1991 Bonds (1985 Indenture Bonds) are collateralized by the net revenues of the Authority and by a Surety Bond purchased under the terms of the Financial Guaranty Agreement in 1994 to replace the debt service reserve funds previously held by The Bank of New York, the trustee. The 1985 Indenture Bonds are also collateralized by all amounts held in the Revenue Fund and all amounts held by The Bank of New York, in the funds created under the 1985 Trust Indenture.

The 2007, 2010, 2011, 2013, 2015, and 2016 Bonds are collateralized by the net revenues of the Authority, by Surety Bonds, in lieu of cash, as required by the trustee and all amounts held in the Revenue Fund and all amounts held by the trustees.

Schedule of Required Debt Service

In accordance with the provisions of the Trust Indentures for the bonds payable, the Authority has established categories of accounts (current, special, and debt service) with certain assets, principally short-term investments, restricted for specific purposes. Each account category is further segregated into specific accounts referred to as funds. All revenues are required by the Trust Indentures to be deposited in a Revenue Fund. These Trust Indentures also require that rates be sufficient to pay current expenses of the Authority, 110% of the debt service requirements for the current fiscal year, and all amounts owed to the Bond Issuer under the terms of the Financial Guaranty Agreement. Current expenses are defined, generally, as the costs of operating and maintaining the sewer system as determined under accounting principles generally accepted in the United States of America, except for depreciation and interest expense.

Funds created as a result of the governing Trust Indentures and by Board of Directors' resolutions are summarized as follows:

	2016	2015
Current account:		
Revenue Fund	$ 91,684,772	$ 72,901,655
Special accounts:		
Capital Facilities Fund	$ 45,811,262	$ 35,691,640
Construction Fund - 2013	2,574,272	30,043,417
Construction Fund - 2015	75,469,125	74,900,807
Capital Interest Fund	-	827
	$ 123,854,659	$ 140,636,691
Debt service accounts:		
Debt Service Fund	$ 19,902	$ 31,792

Maturities of all outstanding bonds of the Authority, in the aggregate, are as follows:

	Principal	Interest	Total Debt Service
2017	$ 24,205,000	$ 28,035,294	$ 52,240,294
2018	25,395,000	26,852,928	52,247,928
2019	26,630,000	25,614,087	52,244,087
2020	27,635,000	24,613,237	52,248,237
2021	28,975,000	23,279,212	52,254,212
2022-2026	144,985,000	93,566,919	238,551,919
2027-2031	96,070,000	63,364,319	159,434,319
2032-2036	91,375,000	43,621,776	134,996,776
2037-2041	93,125,000	21,750,462	114,875,462
2042-2046	38,540,000	4,504,488	43,044,488
Total	$ 596,935,000	$ 355,202,722	$ 952,137,722

The total debt service schedule in Note 11 represents the total debt service requirements (principal, interest, and sinking fund requirements) of the Authority's bond issuances, by issue and in the aggregate.

4. INTEREST COST

Interest cost, including amortization of refunding adjustments, bond discounts/premiums, and prepaid bond costs, for the years ended December 31, 2016 and 2015 were as follows:

	2016	2015
1991 Bonds	$ -	$ 230,348
1992 Bonds	258,844	621,225
1993 Bonds	832,448	1,306,806
2005 Bonds	-	7,405,600
2007 Bonds	3,702,528	5,564,933
2010 Bonds	5,152,300	5,154,942
2011 Bonds	2,671,961	2,887,311
2013 Bonds	3,149,935	3,149,935
2015 Bonds	10,079,038	3,531,331
2016 Bonds	843,401	-
	26,690,455	29,852,431
Bond surety	588,532	35,726
	$ 27,278,987	$ 29,888,157

Interest earned on funds restricted for the purpose of construction of assets or payments of debt service and the interest cost of the related tax-exempt borrowings are deferred and allocated to the cost of capital assets. The Authority used tax-exempt interest earnings to offset capitalized interest costs of $2.8 million and $3.3 million for the years ended December 31, 2016 and 2015, respectively.

5. DEPOSITS AND INVESTMENTS WITH FINANCIAL INSTITUTIONS

The investment and deposit policy of the Authority funds is governed by the Trust Indentures and the Municipal Authority Act. In accordance with these regulations, the Authority is authorized to invest in obligations of the U.S. Treasury, agencies and instrumentalities; certificates of deposits, time deposits or deposits in savings accounts, fully insured or collateralized; commercial paper of the highest rating; bonds or notes issued by the Commonwealth of Pennsylvania, political subdivision, or related school district; repurchase agreements; money market mutual funds; and investment agreements with any bank or insurance company. Throughout the years ended December 31, 2016 and 2015, the

Authority invested in authorized investments that consisted of U.S. government obligations, short-term commercial paper, money market mutual funds, an external investment pool, and guaranteed investment contracts. There were no deposit or investment transactions during 2016 and 2015 that were in violation of either state statutes or the policies of the Authority. The Authority does not have a formal investment policy which addresses custodial credit risk, interest rate risk, credit risk, or concentration of credit risk. The Authority can withdraw funds from the external investment pools without limitations or fees.

GASB Statement No. 40, *"Deposit and Investment Risk Disclosures,"* requires disclosures related to the following deposit and investment risks: credit risk (including custodial credit risk and concentrations of credit risk), interest rate risk, and foreign currency risk. The following is a description of the Authority's deposit and investment risks:

Custodial Credit Risk - Custodial credit risk is the risk that in the event of a bank failure, the Authority's deposits may not be returned to it. As of December 31, 2016, $45,651,059 of the Authority's bank balance of $46,043,973 was exposed to custodial credit risk, which is collateralized in accordance with Act 72 of the Pennsylvania state legislature which requires the institution to pool collateral for all governmental deposits and have the collateral held by an approved custodian in the institution's name. These deposits have carrying amounts of $45,563,952 as of December 31, 2016.

Included in cash and cash equivalents on the statements of net position are short-term investments in money markets and PA INVEST.

At December 31, 2016, the Authority held the following investment balances:

	Carrying Value	Maturity in Years Less Than 1 Year
U.S. Government Agencies	$ 31,286,211	$ 31,286,211
Money Market Funds	136,474,951	136,474,951
PA INVEST	2,077,457	2,077,457
Total	$ 169,838,619	$ 169,838,619

The carrying value of the Authority's investments is the same as their fair value amount. Money markets are valued using quoted market prices (Level 1 inputs). The fair values of U.S. government agency securities are priced using the spread above the risk-free yield curve. As the yields for the risk-free yield curve and the spreads for these securities are observable market inputs, the fair values of U.S. government agency securities are included in the Level 2 fair value hierarchy.

The Authority's investments in the external investment pool (INVEST) is the same as the value of the pool shares and is reported at amortized cost which approximates market. All investments in an external investment pool that is not SEC registered are subject to oversight by the Commonwealth. The Authority can withdraw funds from INVEST without limitations or fees.

Interest Rate Risk – Interest rate risk is the risk that changes in interest rates will adversely affect the fair market value of the Authority's investments.

Credit Risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. As of December 31, 2016, the Authority's investment in the state investment pool (INVEST) was rated AAAm by Standard & Poor's. 100% of the Authority's investments in money market funds are rated AAA by Standard & Poor's, and Aaa by Moody's.

Concentration of Credit Risk – Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investments in a single issuer. As of December 31, 2015, the Authority held approximately 12.0%, 12.1%, 6.9%, and 5.2% of the investments in Federal National Mortgage Association securities, Federal Home Loan Bank securities, Federal Home Loan Mortgage Corporation, and Freddie Mac Discount Notes securities, respectively. As of December 31, 2016, the Authority held approximately 9.1% and 7.5% of the investments in Federal National Mortgage Association securities and Federal Home Loan Mortgage Corporation, respectively.

6. Capital Assets

A summary of capital assets is as follows:

	2016	2015
Nondepreciable assets:		
Land	$ 5,344,896	$ 5,305,562
Construction in progress	30,816,357	38,531,262
Total nondepreciable assets	36,161,253	43,836,824
Depreciable assets:		
Land improvements	4,805,250	4,823,381
Buildings and improvements	455,580,245	455,437,283
Utility plant in service	235,137,247	233,202,361
Machinery and equipment	324,446,350	288,729,591
Total depreciable assets	1,019,969,092	982,192,616
Less accumulated depreciation	460,762,929	439,776,403
Net depreciable assets	559,206,163	542,416,213
Total capital assets	$ 595,367,416	$ 586,253,037

The Authority has spent $30,816,357 and $38,531,262 for construction in progress as of December 31, 2016 and 2015, respectively, with estimated remaining total expansion costs of approximately $251,388,580, which are anticipated to occur over the next five years. These expansion costs are primarily attributable to activities required by the Consent Decree further discussed in Note 10.

7. Pension Plans

General Information About the Pension Plans. The Authority has two single-employer defined benefit pension plans covering substantially all full-time employees: the Management Employees Plan (Management Plan) and the Union Employees Plan (Union Plan). The Union Plan is a contributory plan including all members of the utility workers' collective bargaining unit and the Management Plan is a contributory plan available to all Authority employees not participating in the Union Plan.

Under each of the plans, employees' eligibility for normal benefits begins at age 65, at which time the individual is entitled to an annual retirement benefit, payable monthly for life. For the Management Plan, this benefit is equal to 2.5% of the first $4,200 of average compensation for each year of Credited Service, plus 2.5% of 3-year compensation in excess of $4,200 for each year of Contributory Service (for participant contributing at the rate of 3% of compensation) and 2.0% of 5-year average compensation in excess of $4,200 for each year of Contributory Service (for participant contributing at the rate of 1.25% of compensation in excess of $4,200). If a participant transfers from the Union Plan, the normal retirement benefit is based on all years of employment with the Authority and is offset by the Union Plan benefit. In addition, the portion of the benefit for those contributing 1.25% of compensation in excess of $4,200 will be determined using 2.50% of 3-year average compensation in excess of $4,200 for any Union years of Contributory Service. For the Union Plan, this benefit is equal to 2.5% of the first $4,200 of average compensation for each year of credited service plus 2.5% of average compensation in excess of $4,200 for each year of Contributory Service. The benefit above is limited to 100% of average compensation. For both plans, in no event will a participant's benefit exceed the limits set forth in Section 415(b) of the Internal Revenue Code.

Early retirement is available to all participants who have reached the age of 55 and have at least 10 years of service. For the Management Plan, a participant who is contributing 3% of compensation may retire at age 60 with 10 years of service with no early retirement reduction. If such participant elects to retire prior to age 60, benefits will be reduced by one-half of 1% for each month prior to age 60 in which retirement occurs. For a participant who elected to contribute 1.25% of compensation in excess of $4,200, the monthly benefit will be reduced by one-half of 1% for each month prior to Normal Retirement Date (that is, prior to age 65). For the Union Plan, If the participant has attained age 60 with 25 years of Credited Service and is actively employed immediately prior to retirement, the benefit is unreduced. Otherwise, the benefit is reduced actuarially if it commences prior to age 62 or by 5% per year if it commences between age 62 and Normal Retirement Date.

In both plans, for those retiring after age 65, the benefit is the greater of (1) the actuarial equivalent of the benefit that would have been payable at the Normal Retirement Date and (2) the benefit based on service and earnings as of the actual retirement date.

Employees Covered by Benefit Terms. As of the most recent actuarial valuations, the following employees were covered by the benefit terms:

	Management	Union	Total
Inactive plan members or beneficiaries currently receiving benefits	67	174	241
Inactive plan members entitled to but not yet receiving benefits	18	31	49
Active plan members	117	263	380
Total plan members	202	468	670

Contributions. Participants in the Management Plan contribute 3.0% and participants in the Union Plan contribute 1.25% of earnings to their respective plans. The Authority's contributions to the plans are based on actuarially determined rates.

Net Pension Liability (Asset). The Authority's net pension liability (asset) for 2015 and 2016 was measured as of December 31, 2014 and 2015, respectively. The total pension liability used to calculate the net pension liability (asset) was determined by actuarial valuations as of those respective measurement dates.

Actuarial Assumptions. The total pension liability in the December 31, 2015 and 2014 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Entry age normal
Actuarial assumptions:	
Investment rate of return	7.45%
Underlying inflation rate	2.50%
Salary projection	4.50%

Management Plan - For healthy lives, mortality is in accordance with the RP-2000 Combined Mortality Table adjusted for white-collar employees with using separate rates for employees and annuitants, and with fully generational projected mortality improvement under Scale BB2D. For disabled lives, mortality is in accordance with the disabled mortality table specified in IRS Revenue Ruling 96-7 for disabilities occurring prior to 1995.

Union Plan - For healthy lives, mortality is in accordance with the RP-2000 Combined Mortality Table adjusted for blue-collar employees with using separate rates for employees and annuitants, and with fully generational projected mortality improvement under Scale BB2D. For disabled lives, mortality is in accordance with the disabled mortality table specified in IRS Revenue Ruling 96-7 for disabilities occurring prior to 1995.

Actuarial assumptions used in the respective valuations were based on actuarial experience studies for the period January 1, 2014 to December 31, 2014 and January 1, 2015 to December 31, 2015.

Long-Term Expected Rate of Return. The long-term expected rate of return on plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The following were the asset allocation policy and best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation:

	Management Plan		Union Plan	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
US equity	70.0%	6.00%	70.0%	6.00%
Fixed income	30.0%	0.50%	30.0%	0.50%
	100.0%		100.0%	

Discount Rate. The discount rate used to measure the total pension liability was 7.45%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that the Authority's contributions will be made based on the actuarially determined contribution. Based on those assumptions, the fiduciary net position of each plan was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability (Asset). Changes in the Authority's net pension liability (asset) are as follows:

	Management Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/15	$ 38,113,794	$ 35,246,856	$ 2,866,938
Changes for the year:			
Service cost	1,193,822	-	1,193,822
Interest	2,864,194	-	2,864,194
Differences between expected and actual experience	1,043,646	-	1,043,646
Changes of benefit terms	-	-	-
Changes of assumptions	-	-	-
Employer contributions	-	1,642,817	(1,642,817)
Member contributions	-	215,651	(215,651)
Net investment income	-	(64,985)	64,985
Benefit payments, including refunds of employee contributions	(1,591,493)	(1,591,493)	-
Balances at 12/31/16	$ 41,623,963	$ 35,448,846	$ 6,175,117
Plan fiduciary net position as a percentage of total pension liability			85.16%

Net investment income includes $145,323 of trustee and other investment related expenses.

	Union Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/15	$ 102,438,342	$ 107,136,701	$ (4,698,359)
Changes for the year:			
Service cost	2,476,956	-	2,476,956
Interest	7,634,199	-	7,634,199
Differences between expected and actual experience	389,969	-	389,969
Changes of benefit terms	-	-	-
Changes of assumptions	-	-	-
Employer contributions	-	3,170,502	(3,170,502)
Member contributions	-	194,364	(194,364)
Net investment income	-	(1,652,268)	1,652,268
Benefit payments, including refunds of employee contributions	(4,509,841)	(4,509,841)	-
Balances at 12/31/16	$ 108,429,625	$ 104,339,458	$ 4,090,167
Plan fiduciary net position as a percentage of the total pension liability			96.23%

Net investment income includes $306,654 of trustee and other investment related expenses.

Pennsylvania Act 205 (Act 205) is the authority by which benefit provisions are established and may be amended. Stand-alone financial reports were not issued for either of the Plans, as they are not required under the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974.

Sensitivity of the Net Pension Liability to Changes in Discount Rate. The following presents the net pension liability (asset) of the Authority, calculated using the discount rate of 7.45%, as well as what the Authority's net pension liability (asset) would be if it were calculated using a discount rate that is 1% lower (6.45%) or 1% higher (8.45%) than the current rate:

	1% Decrease (6.45%)	Current Discount Rate (7.45%)	1% Increase (8.45%)
Management	$ 11,481,412	$ 6,175,117	$ 1,714,746
Union	17,893,090	4,090,167	(7,532,621)
	$ 29,374,502	$ 10,265,284	$ (5,817,875)

Pension Expense and Deferred Inflows/Outflows of Resources Related to Pensions. For the years ended December 31, 2016 and 2015, the Authority recognized pension expense of $5,226,072 and $2,456,568, respectively. At December 31, 2016 and 2015, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	2016	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 1,324,475	$ 303,434
Changes of assumptions	3,208,302	-
Net difference between projected and actual earnings on pension plan investments	9,818,546	3,799,002
Contributions made subsequent to the measurement date	5,102,917	-
	$ 19,454,240	$ 4,102,436

	2015	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 136,521	$ 359,625
Changes of assumptions	3,853,375	-
Net difference between projected and actual earnings on pension plan investments	-	5,065,336
Contributions made subsequent to the measurement date	4,813,319	-
	$ 8,803,215	$ 5,424,961

Deferred outflows of resources related to Authority pension contributions subsequent to the measurement date of $5,102,917 and $4,813,319 will be recognized as a reduction of the net pension liability in the years ending December 31, 2017 and 2016, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Year Ending December 31,	Deferred Outflows	Deferred Inflows
2017	$ 3,345,371	$ 1,322,525
2018	3,345,371	1,322,525
2019	3,345,371	1,322,525
2020	3,345,368	56,191
2021	666,936	56,191
2022	281,830	22,479
2023	21,076	-
	$ 14,351,323	$ 4,102,436

8. Post-Retirement Benefits

In addition to the pension benefits described in Note 7, the Authority provides certain post-retirement healthcare benefits to management and union retirees until age 65.

In accordance with the Authority's Policy and Procedures Manual for Management Employees, these benefits are provided to all management employees who retire on or after attaining age 55 with at least ten years of credited service. Eight retirees in 2016 and seven retirees in 2015 met these eligibility requirements for which the Authority paid 100% of the medical insurance premiums. These premium expenditures amounted to $126,505 and $102,409 for 2016 and 2015, respectively.

Additionally, in accordance with the current labor agreement between the Authority and the Utility Workers Union of America AFL-CIO Local 433, certain healthcare benefits are provided to all union employees who retire at age 60 through age 65 with 25 years of credited service. In addition to the healthcare benefits, the Authority provides full hospitalization for retirees between the ages of 62 and 65 with 15 to 24 years of credited service and 25% of the life insurance coverage that was provided while employed with the Authority will be carried into retirement. Fifteen retirees in 2016 and fourteen retirees in 2015 met these eligibility requirements for which the Authority pays 100% of the medical insurance premiums. These premium expenditures amounted to $225,913 and $198,793 for 2016 and 2015, respectively.

In addition to these post-retirement healthcare benefits, the Authority also provides to both management and union retirees, the Vision Program, the Prescription Drug Program, and the Dental Program. For these programs; however, the retiree shall be responsible to pay the entire prevailing premium being paid by the Authority for its employees. Usually, these premiums are taken directly out of the retirees' pension payments.

During fiscal year 2016, the annual future other post-retirement benefits cost was determined based on the assumptions used in the actuarial valuation performed in 2016. This resulted in the Authority accruing a liability of $5,173,881 for future other post-retirement benefits.

The Authority's annual OPEB cost is calculated based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with the parameters of GASB Statement No. 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. The following table shows the component of the Authority's annual OPEB cost for the year, the amount actually contributed, and changes in the Authority's net OPEB obligation:

Annual required contribution	$ 1,203,733
Interest on net OPEB obligation	178,255
Adjustment to annual required contribution	(257,712)
Annual OPEB cost	1,124,276
Contributions made (includes implicit rate subsidy)	(406,766)
Increase in net OPEB obligation	717,510
Net OPEB obligation - beginning of year	4,456,371
Net OPEB obligation - end of year	$ 5,173,881

The Authority's annual OPEB cost, the percentage of annual OPEB cost contributed and the OPEB obligation were as follows:

Year Ending	Annual OPEB Cost	Employer Contributions	% of AOC Contributed	Net OPEB Obligation
12/31/2014	$ 1,048,585	$ 371,802	35.46%	$ 3,725,837
12/31/2015	1,137,300	406,766	35.77%	4,456,371
12/31/2016	1,124,276	406,766	36.18%	5,173,881

The ARC for the current year was computed as of the latest actuarial valuation using the following actuarial assumptions:

Actuarial valuation date	1/1/15
Actuarial cost method	Projected Unit Credit
Amortization method	Level Dollar Open
Asset valuation method	n/a
Amortization period	30 years
Actuarial assumptions:	
Investment rate of return	4.0%
Projected salary increases	4.5%
Inflation rate	2.3%
Cost-of-living adjustments	n/a

Several actuarial assumption changes were made for the January 1, 2015 actuarial report. The aging table was updated to reflect factors developed in the 2013 Society of Actuaries "Health Care Costs – From Birth to Death" independent report. The trend rate assumption was revised to reflect a) lower expected short-term healthcare cost increases and b) a shortening of the period of time to reach the ultimate trend rate. Finally, the mortality assumption was revised to reflect updated factors for future mortality improvement. Assumed mortality for non-disabled participants is now based on the RP-2000 Mortality Table, adjusted for blue-collar (Bargaining) or white-collar (Management) employees, using separate tables for employees and retirees, and with fully generational mortality improvement projected under Scale BB2D.

Funding Status and Funding Progress

The schedule of funding progress as of January 1, 2015 for the postemployment medical and life insurance benefits is as follows:

Actuarial value of plan assets	$ -
Actuarial accrued liability (AAL)	10,609,274
Unfunded actuarial accrued liability (UAAL)	$ (10,609,274)
Funded ratio (actuarial value of plan assets/AAL)	0.00%
Covered payroll (active plan members)	$ 24,487,838
UAAL as a percentage of covered payroll	-43.32%

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far in the future. Examples include assumptions about future employment and mortality. Amounts determined regarding the future status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made in the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements will show multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

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

9. CONTINGENCIES

The Authority is exposed to various risks of loss related to torts; alleged negligence; acts of discrimination; breach of contract; disagreements arising from the interpretation of laws or regulations; theft of, damage to and destruction of assets; errors and omissions; injuries to employees and natural disasters, for which the Authority carries commercial insurance.

While some of these claims may be for substantial amounts, they are not unusual in the ordinary course of providing collection, transportation and treatment of wastewater services for applicable municipalities. The Authority does not participate in any public entity risk pool, and does not retain risk related to any aforementioned exposure except for those amounts incurred relative to policy deductibles, which are not significant. Additionally, the Authority has not significantly reduced any of its insurance coverage from the prior years. Settled claims have not exceeded the Authority's commercial coverage in any of the past three years. Except as noted below, the Authority's management does not expect that the resolution of any outstanding claims and litigation will have a material adverse effect on the accompanying financial statements.

10. Environmental Permit Requirements

The Authority is currently engaged in a major capital program to provide additional treatment capacity as required by Pennsylvania Law. This program is the first phase of a multi-phased program designed to reduce or eliminate wet-weather discharges from the Authority's conveyance and treatment system. As required by the Clean Water Act, the Authority concluded negotiations with the U.S. Environmental Protection Agency, Pennsylvania Department of Environmental Protection, and the Allegheny County Health Department (collectively the Agencies) in May of 2007. A Consent Decree resulting from these negotiations was entered by the United States District Court for the Western District of Pennsylvania on January 23, 2008. The Consent Decree requires the Authority to further develop, refine and submit a Long Term Wet Weather Control Plan (Plan) to the Agencies by January 30, 2013. A draft of the Plan was released for public comment at the end of July, 2012, and subsequently provided to the Agencies for review January 30, 2013. In response to public comment, the Authority requested additional time to finalize the Plan to incorporate an evaluation of green technology. The Agencies are reviewing the Authority's submissions, and continue to meet with the Authority to discuss implementing the Plan in phases that will accommodate cost and green alternatives.

The final Plan will include provisions for significant capital improvements to the Authority's conveyance and treatment system, to capture and treat a defined flow from its customer municipalities, and to achieve applicable receiving stream water quality standards. Upon approval by the Agencies, the Plan activities must be completed by September 30, 2026.

11. TOTAL DEBT SERVICE SCHEDULE

	Series of 2010	Series of 2011	Series of 2013	Subtotal	Series of 2015	Series of 2016	Combined Debt Service	Annual Debt Service
June 1, 2017	$ 2,803,127	$ 11,938,874	$ 1,612,056	$ 16,354,057	$ 6,186,612	$ -	$ 22,540,669	
December 1, 2017	2,600,503	11,936,505	1,612,055	16,149,063	9,096,612	4,453,950	29,699,625	$ 52,240,294
June 1, 2018	2,815,502	11,937,750	1,612,058	16,365,310	6,128,412	-	22,493,722	
December 1, 2018	2,597,413	11,937,375	1,612,056	16,146,844	9,158,412	4,448,950	29,754,206	52,247,928
June 1, 2019	2,817,413	11,940,250	1,612,056	16,369,719	6,067,813	-	22,437,532	
December 1, 2019	2,594,113	11,936,125	1,612,055	16,142,293	9,217,812	4,446,450	29,806,555	52,244,087
June 1, 2020	2,774,113	-	1,612,056	4,386,169	6,004,812	-	10,390,981	
December 1, 2020	2,591,188	-	1,612,056	4,203,244	33,459,812	4,194,200	41,857,256	52,248,237
June 1, 2021	2,781,188	-	1,612,056	4,393,244	5,341,638	-	9,734,882	
December 1, 2021	2,586,438	-	1,612,056	4,198,494	34,126,636	4,194,200	42,519,330	52,254,212
June 1, 2022	2,791,438	-	1,612,056	4,403,494	4,624,813	-	9,028,307	
December 1, 2022	2,581,310	-	1,612,057	4,193,367	34,834,812	4,194,200	43,222,379	52,250,686
June 1, 2023	2,806,313	-	1,612,056	4,418,369	3,872,813	-	8,291,182	
December 1, 2023	2,575,688	-	1,612,056	4,187,744	35,592,812	4,194,200	43,974,756	52,265,938
June 1, 2024	5,980,688	-	1,612,056	7,592,744	3,090,213	-	10,682,957	
December 1, 2024	2,490,563	-	7,112,054	9,602,617	17,820,212	10,909,200	38,332,029	49,014,986
June 1, 2025	6,030,563	-	1,489,894	7,520,457	2,735,150	-	10,255,607	
December 1, 2025	2,402,063	-	8,989,894	11,391,957	12,540,150	12,648,450	36,580,557	46,836,164
June 1, 2026	15,257,063	-	1,312,019	16,569,082	2,509,203	-	19,078,285	
December 1, 2026	2,080,688	-	8,812,019	10,892,707	4,649,203	3,563,950	19,105,860	38,184,145
June 1, 2027	5,805,688	-	1,124,519	6,930,207	2,478,441	-	9,408,648	
December 1, 2027	1,987,563	-	8,624,518	10,612,081	13,263,440	3,888,150	27,763,671	37,172,319
June 1, 2028	5,907,563	-	938,519	6,846,082	2,208,816	-	9,054,898	
December 1, 2028	1,889,563	-	6,438,519	8,328,082	13,528,815	3,889,150	25,746,047	34,800,945
June 1, 2029	6,004,563	-	807,319	6,811,882	1,962,666	-	8,774,548	
December 1, 2029	1,786,688	-	3,307,319	5,094,007	13,777,666	3,889,350	22,761,023	31,535,571
June 1, 2030	6,116,688	-	754,819	6,871,507	1,667,291	-	8,538,798	
December 1, 2030	1,678,434	-	754,818	2,433,252	14,072,291	3,883,750	20,389,293	28,928,091
June 1, 2031	4,238,438	-	754,819	4,993,257	1,357,166	-	6,350,423	
December 1, 2031	1,622,438	-	754,816	2,377,254	3,952,166	14,317,550	20,646,970	26,997,393
June 1, 2032	4,297,438	-	754,819	5,052,257	1,313,375	-	6,365,632	
December 1, 2032	1,563,922	-	754,819	2,318,741	3,993,375	14,323,150	20,635,266	27,000,898
June 1, 2033	4,353,922	-	754,819	5,108,741	1,246,375	-	6,355,116	
December 1, 2033	1,502,891	-	754,819	2,257,710	4,061,375	14,325,950	20,645,035	27,000,151
June 1, 2034	4,417,891	-	754,819	5,172,710	1,176,000	-	6,348,710	
December 1, 2034	1,439,125	-	754,818	2,193,943	4,131,000	14,320,350	20,645,293	26,994,003
June 1, 2035	4,499,125	-	754,819	5,253,944	1,102,125	-	6,356,069	
December 1, 2035	1,362,625	-	754,818	2,117,443	4,207,125	14,320,950	20,645,518	27,001,587
June 1, 2036	4,582,625	-	754,819	5,337,444	1,024,500	-	6,361,944	
December 1, 2036	1,282,125	-	754,818	2,036,943	4,284,500	14,316,750	20,638,193	27,000,137
June 1, 2037	4,662,125	-	754,819	5,416,944	943,000	-	6,359,944	
December 1, 2037	1,197,625	-	754,818	1,952,443	4,363,000	14,322,150	20,637,593	26,997,537
June 1, 2038	16,372,625	-	754,819	17,127,444	857,500	-	17,984,944	
December 1, 2038	818,250	-	754,819	1,573,069	4,447,500	-	6,020,569	24,005,513
June 1, 2039	16,773,250	-	754,819	17,528,069	767,750	-	18,295,819	
December 1, 2039	419,375	-	754,819	1,174,194	4,537,750	-	5,711,944	24,007,763
June 1, 2040	17,194,375	-	754,819	17,949,194	673,500	-	18,622,694	
December 1, 2040	-	-	754,819	754,819	4,633,500	-	5,388,319	24,011,013
June 1, 2041	-	-	754,818	754,818	574,500	-	1,329,318	
December 1, 2041	-	-	9,789,818	9,789,818	4,734,500	-	14,524,318	15,853,636
June 1, 2042	-	-	517,650	517,650	470,500	-	988,150	
December 1, 2042	-	-	6,897,650	6,897,650	4,835,500	-	11,733,150	12,721,300
June 1, 2043	-	-	350,175	350,175	361,375	-	711,550	
December 1, 2043	-	-	6,855,174	6,855,174	4,946,375	-	11,801,549	12,513,099
June 1, 2044	-	-	179,419	179,419	246,750	-	426,169	
December 1, 2044	-	-	7,014,420	7,014,420	5,061,750	-	12,076,170	12,502,339
June 1, 2045	-	-	-	-	126,375	-	126,375	
December 1, 2045	-	-	-	-	5,181,375	-	5,181,375	5,307,750
	$ 195,734,315	$ 71,626,879	$ 122,102,568	$ 389,463,762	$ 389,628,960	$ 173,045,000	$ 952,137,722	$ 952,137,722

Required Supplementary Information

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF CHANGES IN THE NET
PENSION LIABILITY AND RELATED RATIOS - MANAGEMENT

YEARS ENDED DECEMBER 31,

	2016	2015
Total Pension Liability:		
Service cost	$ 1,193,822	$ 1,012,344
Interest	2,864,194	2,597,036
Differences between expected and actual experience	1,043,646	163,825
Changes of benefit terms	-	-
Changes of assumptions	-	1,178,962
Benefit payments, including refunds of member contributions	(1,591,493)	(1,495,819)
Net Changes in Total Pension Liability	3,510,169	3,456,348
Total Pension Liability - Beginning	38,113,794	34,657,446
Total Pension Liability - Ending (a)	$ 41,623,963	$ 38,113,794
Plan Fiduciary Net Position:		
Plan member contributions	$ 215,651	$ 217,014
Employer actuarially recommended contributions	1,642,817	1,647,664
Net investment income	(64,985)	3,062,959
Benefit payments, including refunds of member contributions	(1,591,493)	(1,495,819)
Net Change in Plan Fiduciary Net Position	201,990	3,431,818
Plan Fiduciary Net Position - Beginning	35,246,856	31,815,038
Plan Fiduciary Net Position - Ending (b)	$ 35,448,846	$ 35,246,856
Net Pension Liability (Asset) - Ending (a-b)	$ 6,175,117	$ 2,866,938
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	85.16%	92.48%
Covered Employee Payroll	$ 7,340,502	$ 6,455,960
Net Pension Liability as a Percentage of Covered Employee Payroll	84.12%	44.41%

See accompanying notes to required supplementary pension schedules.

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS - UNION

YEARS ENDED DECEMBER 31,

	2016	2015
Total Pension Liability:		
Service cost	$ 2,476,956	$ 2,293,999
Interest	7,634,199	7,030,443
Differences between expected and actual experience	389,969	(415,816)
Changes of benefit terms	-	-
Changes of assumptions	-	3,319,486
Benefit payments, including refunds of member contributions	(4,509,841)	(4,067,193)
Net Changes in Total Pension Liability	5,991,283	8,160,919
Total Pension Liability - Beginning	102,438,342	94,277,423
Total Pension Liability - Ending (a)	$ 108,429,625	$ 102,438,342
Plan Fiduciary Net Position:		
Plan member contributions	$ 194,364	$ 179,401
Employer actuarially recommended contributions	3,170,502	3,124,830
Net investment income	(1,652,268)	12,699,402
Benefit payments, including refunds of member contributions	(4,509,841)	(4,067,193)
Net Change in Plan Fiduciary Net Position	(2,797,243)	11,936,440
Plan Fiduciary Net Position - Beginning	107,136,701	95,200,261
Plan Fiduciary Net Position - Ending (b)	$ 104,339,458	$ 107,136,701
Net Pension Liability (Asset) - Ending (a-b)	$ 4,090,167	$ (4,698,359)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	96.23%	104.59%
Covered Employee Payroll	$ 17,147,336	$ 16,613,080
Net Pension Liability as a Percentage of Covered Employee Payroll	23.85%	-28.28%

See accompanying notes to required supplementary pension schedules.

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF AUTHORITY CONTRIBUTIONS - PENSIONS

YEARS ENDED DECEMBER 31,

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Actuarially determined contribution:										
Management	$ 1,795,051	$ 1,642,817	$ 1,647,664	$ 1,606,029	$ 1,529,224	$ 1,358,351	$ 1,328,190	$ 934,784	$ 850,919	$ 781,829
Union	3,307,866	3,170,502	3,124,830	2,260,312	2,199,113	1,804,689	1,765,668	667,181	624,065	-
	5,102,917	4,813,319	4,772,494	3,866,341	3,728,337	3,163,040	3,093,858	1,601,965	1,474,984	781,829
Contributions in relation to the actuarially determined contribution:										
Management	1,795,051	1,642,817	1,647,664	1,606,104	1,529,224	1,358,400	1,328,190	934,800	850,919	781,900
Union	3,307,866	3,170,502	3,124,830	2,260,313	2,199,952	1,804,700	1,765,668	667,181	624,065	-
	5,102,917	4,813,319	4,772,494	3,866,417	3,729,176	3,163,100	3,093,858	1,601,981	1,474,984	781,900
Contribution deficiency (excess)	$ -	$ -	$ -	$ (76)	$ (839)	$ (60)	$ -	$ (16)	$ -	$ (71)
Covered employee payroll:										
Management	$ 8,594,987	$ 7,340,502	$ 6,455,960	$ 7,066,389	$ 6,957,730	$ 6,554,237	$ 6,198,835	$ 5,783,644	$ 5,259,790	$ 4,894,885
Union	18,107,692	17,147,336	16,613,080	16,193,768	15,871,099	15,750,647	15,233,174	14,618,183	13,899,054	13,042,910
	$ 26,702,679	$ 24,487,838	$ 23,069,040	$ 23,260,157	$ 22,828,829	$ 22,304,884	$ 21,432,009	$ 20,401,827	$ 19,158,844	$ 17,937,795
Contributions as a percentage of covered employee payroll	19.11%	19.66%	20.69%	16.62%	16.33%	14.18%	14.44%	7.85%	7.70%	4.36%

Notes to Required Supplementary Pension Schedules:

Valuation date: Actuarial calculations are performed each year as of January 1. Contributions noted above are as of each pension plan's calendar year ending December 31 using actuarially determined contribution rates calculated as of January 1, one year prior to the end of the calendar year in which contributions are reported.

Methods and assumptions used to determine the contribution rates:

Actuarial cost method	Entry Age Normal - Union Plan Entry Age Normal - Management Plan
Amortization method	Level-dollar monthly payments - Union Plan Level-dollar monthly payments - Management Plan
Remaining amortization period	15 years Union Plan 14 years Management Plan
Asset valuation method	Smoothed market value (without phase-in) - Union Plan Smoothed market value (with phase-in) - Management Plan
Inflation	2.50% Union Plan 2.50% Management Plan
Salary increases	4.50% Union Plan 4.50% Management Plan
Investment rate of return (gross return assumption)	7.75% Union Plan 7.75% Management Plan
Mortality - Union Plan	For healthy lives, mortality is in accordance with the RP-2000 Combined Mortality Table adjusted for blue-collar employees with using separate rates for employees and annuitants, and with fully generational projected mortality improvement under Scale BB2D. Previously, combined mortality rates were used for all participants and mortality improvement was projected under Scale AA. For disabled lives, mortality is in accordance with the disabled mortality table specified in IRS Revenue Ruling 96-7 for disabilities occurring prior to 1995.
Mortality - Management Plan	For healthy lives, mortality is in accordance with the RP-2000 Combined Mortality Table adjusted for white-collar employees with using separate rates for employees and annuitants, and with fully generational projected mortality improvement under Scale BB2D. Previously, combined mortality rates were used for all participants and mortality improvement was projected under Scale AA. For disabled lives, mortality is in accordance with the disabled mortality table specified in IRS Revenue Ruling 96-7 for disabilities occurring prior to 1995.

Note: the mortality improvement assumptions were updated as of the December 31, 2006, 2010, 2012, 2014, 2015 valuations.

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF FUNDING PROGRESS - OPEB PLAN

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	Excess (Deficiency) as a Percentage of Covered Payroll
1/1/2011	$ -	$ 7,945,721	$ (7,945,721)	0.00%	$ 22,304,884	(35.62%)
1/1/2013	-	9,851,054	(9,851,054)	0.00%	23,260,157	(42.35%)
1/1/2015	-	10,609,274	(10,609,274)	0.00%	24,487,838	(43.32%)

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF CONTRIBUTIONS - OPEB PLAN

Calendar Year	Annual OPEB Cost	Employer Contributions	Percentage Contributed
2011	$ 932,010	$ 347,147	37.25%
2012	921,581	347,147	37.67%
2013	1,060,870	371,802	35.05%
2014	1,048,585	371,802	35.46%
2015	1,137,300	406,766	35.77%
2016	1,124,276	406,766	36.18%

Supplementary Information

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF INVESTMENTS AND OTHER ASSETS

YEAR ENDED DECEMBER 31, 2016

	Cash and Cash Equivalents	Investments	Accrued Interest Receivable	Total
Current Account:				
Revenue Fund	$ 91,684,772	$ -	$ -	$ 91,684,772
Special Accounts:				
Capital Facilities Fund	45,811,262	-	-	45,811,262
Construction Fund 2013	2,574,272	-	-	2,574,272
Construction Fund 2015	43,869,855	31,442,508	156,762	75,469,125
Capital Interest Fund	-	-	-	-
	92,255,389	31,442,508	156,762	123,854,659
Debt Service Accounts:				
Debt Service Fund	19,902	-	-	19,902
Total	$ 183,960,063	$ 31,442,508	$ 156,762	$ 215,559,333

ALLEGHENY COUNTY SANITARY AUTHORITY

SCHEDULE OF INVESTMENTS AND OTHER ASSETS

YEAR ENDED DECEMBER 31, 2015

	Cash and Cash Equivalents	Investments	Accrued Interest Receivable	Total
Current Account:				
Revenue Fund	$ 72,901,655	$ -	$ -	$ 72,901,655
Special Accounts:				
Capital Facilities Fund	35,691,640	-	-	35,691,640
Construction Fund 2013	30,043,417	-	-	30,043,417
Construction Fund 2015	546,057	74,050,644	304,106	74,900,807
Capital Interest Fund	827	-	-	827
	66,281,941	74,050,644	304,106	140,636,691
Debt Service Accounts:				
Debt Service Fund	31,792	-	-	31,792
Total	$ 139,215,388	$ 74,050,644	$ 304,106	$ 213,570,138