

Pittsburgh Water and Sewer Authority

Single Audit

2015

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PITTSBURGH WATER AND SEWER AUTHORITY

YEARS ENDED DECEMBER 31, 2015 AND 2014

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PITTSBURGH WATER AND SEWER AUTHORITY

YEARS ENDED DECEMBER 31, 2015 AND 2014

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Independent Auditor's Report

Board of Directors
Pittsburgh Water and Sewer Authority

Report on the Financial Statements

We have audited the accompanying financial statements of the Pittsburgh Water and Sewer Authority (Authority), a component unit of the City of Pittsburgh (City), Pennsylvania, as of and for the years ended December 31, 2015 and 2014, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with 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 and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the 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 Authority'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, 2015 and 2014, and the 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 on pages i through xii 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.

Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The combining statements of net position and revenue, expenses, and changes in net position (combining statements) are presented for purposes of additional analysis and are not a required part of the basic financial statements. The schedule of expenditures of federal awards is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, and is also not a required part of the basic financial statements.

The combining statements and the schedule of expenditures of federal awards 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. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining statements and the schedule of expenditures of federal awards are fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated April 15, 2016 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

Maher Duessel

Pittsburgh, Pennsylvania
April 15, 2016

THE PITTSBURGH WATER AND SEWER AUTHORITY

2015 Financial Statements Management's Discussion and Analysis

The Pittsburgh Water and Sewer Authority (Authority) comparative 2015 and 2014 fiscal year financial statements enclosed have been conformed to meet the requirements of Governmental Accounting Standards Board (GASB) Statement No. 34, "*Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments.*" The financial statements incorporate three basic statements: the Statements of Net Position, the Statements of Revenues, Expenses, and Changes in Net Position, and the Statements of Cash Flows.

This Management's Discussion and Analysis (MD&A) is based upon facts, decisions, and conditions known as of the date of the audit report. Please note that the historical information provided in the financial statements and MD&A reflects the results of past operations and is not necessarily indicative of results of future operations. Future operations will be affected by various factors, including, but not limited to, regulatory mandates, rate changes, weather, labor contracts, population changes, business environment and other matters, the nature and effect of which cannot now be determined.

Using This Financial Report – Overview of Reporting Changes

The Statements of Net Position present information about the resources which are available to the Authority and claims against these resources. Both assets and liabilities are classified in a format which segregates current from long-term. In addition, assets available for special purposes – labeled "restricted assets" - are segregated from those assets available for operations. The Authority's restricted assets represent money on deposit with the bond trustee to meet indenture, debt service, and construction program requirements. Liabilities have a similar classification segregating claims on restricted assets from claims on assets available for operations. The net position section of the Statements of Net Position classifies the total net position as net investment in capital assets, restricted for capital activity and debt service, and unrestricted.

The Statements of Revenues, Expenses, and Changes in Net Position summarize operating and non-operating activity for the fiscal year and the resulting impact on the Authority's net position.

The Statements of Revenues, Expenses, and Changes in Net Position include wastewater treatment revenues and expenses for services provided by the Allegheny County Sanitary Authority (ALCOSAN). There are no outstanding bond issues associated directly or indirectly with wastewater revenue streams.

The Statements of Cash Flows have been prepared using the direct method. The statements provide an analysis of the Authority's cash by operating, investing, and capital and related financing activities over the respective fiscal year.

Financial Highlights 2015 and 2014

In 2015, operating income increased by 10.3% or \$4.0 million to \$42.5 million. The Authority experienced an overall net gain of \$23.4 million due to increases in operating income and decreases in non-operating expenses, up from a \$4.0 million net loss in 2014.

Below are the 2015 financial highlights:

Total operating revenues in 2015 were up \$9.9 million or 6.0% to \$174.2 million when compared to 2014. Wastewater treatment revenues increased \$5.6 million. Water and sewer conveyance revenues increased \$5.3 million from 2014. Both of these increases are attributable to rate increases by the Authority and ALCOSAN. Other operating income decreased by \$1.0 million from 2014, as overall development in the City of Pittsburgh resulted in less tap fees and other permitting related items.

Total non-operating revenues (expenses) decreased by \$23.4 million from 2014, mostly driven by the expense recognized in 2014 for the change in the fair market value of the 2008C2 investment swap from a \$10.3 million loss in 2014 to a \$0.1 million loss in 2015 and a one-time recognized \$9.5 million charge due to restructuring the 2008C swaps in November 2014. Both of these debt items were non-cash. Donated

property revenue increased by \$3.4 million from \$14.7 million in 2014 to \$18.1 million in 2015, driven by increased development. Interest and amortization cost decreased by \$0.8 million from \$37.6 million in 2014 down to \$36.9 million in 2015 due mainly to a decrease in credit facility and liquidity costs.

Total operating expenses increased in 2015 to \$131.7 million compared to \$125.8 million in 2014. Significant operating expenses included the following factors:

- Salary and employee benefit expenses were up \$1.3 million or 7%. The increase is attributed to an average salary rate increase of 3%, severance payouts, and a 7% increase in benefit costs.

The majority of Authority employees are represented by one of three labor unions. The Pittsburgh Joint Collective Bargaining Committee (PJCBC) represents blue-collar employees. The American Federation of State, County and Municipal Employees (AFSCME) represents Local 2719 employees and Local 2037. A new three-year agreement with AFSCME became effective January 1, 2014 and will expire December 31, 2016. A four-year agreement with the PJCBC became effective January 1, 2013, and expires December 31, 2016.

- Overall direct operating expenses, excluding salaries and benefits, increased by \$7.9 million or 12.2% to \$72.8 million in 2015 from \$64.9 million in 2014. Operating contracts increased by \$7.9 million, mostly because of the wastewater treatment expense, which increased by \$7.2 million or 13.6% to \$60.0 million when compared to \$52.8 million in 2014, due to ALCOSAN's rate increase. Chemicals expense decreased by \$0.4 million from 2014. Equipment expenses remained consistent with 2014, at just under \$0.5 million each year. Repairs and maintenance decreased by \$0.3 million from 2014. Overall Inventory increased by \$0.7 million from 2014, due to resolution of long-term system issues.
- Overall general and administrative expenses decreased 15.3% or \$2.7 million, to \$14.8 million in 2015 from \$17.5 million in 2014. Admin fees increased by \$0.2 million, Professional services decreased overall by \$1.0 million, the biggest contributor to this being a decrease in payments to consultants in 2015 compared to 2014. Utility expense increased by \$0.1 million from 2014. Miscellaneous administrative costs decreased by \$1.9 million from the previous year, the biggest factor being a \$1.1 million reduction of legal reserves resulting from claims settled and paid during 2015. Decreases in postage and supply costs make up the remaining \$0.1 million decrease from 2014.
- Overall other expenses decreased 2.2% or \$1.4 million to \$60.6 million in 2015 from \$62.0 million in 2014. Non-city water subsidy to Pennsylvania American Water Company (PAWC) decreased by 37.9% or \$1.1 million to \$1.8 million in 2015 compared to \$2.9 million in 2014. Interest expense decreased 2.1% or \$0.8 million to \$36.9 million in 2015 compared to \$37.6 million in 2014. Debt credit facility and liquidity fees decreased \$1.0, which was slightly offset by monthly interest payment increases, up about \$0.2 million from 2014.
- In 2015, cash collections increased by \$6.7 million, with \$164.9 million collected from billings compared to \$158.2 million in 2014 due to rate increases by both the Authority and ALCOSAN. The Authority collection percentage also dropped slightly compared to 2014 due to timing issues caused by billing delays. The Authority looks to return to historical collection levels in 2016.

Other 2015 highlights include:

- In early 2012, the Authority decided to engage an outside management company to direct its operations. After an extensive search, the Authority selected and engaged Veolia Water North America (Veolia), a subsidiary of Veolia Environnement S.A., the world's largest supplier of water services. Veolia was engaged for a one-year period

beginning in July 2012, with an optional six-month renewal available at the Authority's discretion. Said extension was granted in mid-2013. The agreement was extended further through December of 2014 and again through 2015 with two optional six-month renewals for 2016.

- As part of the engagement of Veolia to manage the Authority, diagnostic studies were performed by Veolia of operations and expenditures. As a result of these evaluations, a number of operational improvement initiatives (known as Key Performance Indicators) and monetary efficiency initiatives (known as Opex Initiatives) were developed and presented to the Authority. It was felt that with implementation of these initiatives, as approved by the Authority, significant operational efficiencies and cost savings would be reached. In 2015, Veolia was paid approximately \$1.8 million in shared savings and operational improvement performance payments from these initiatives.
- The Authority continued its relationship with Jordan Tax Service, Inc. (JTS) as its Collector and the law firm of Goehring, Rutter & Boehm, P.C. as Special Legal Counsel for the collection of delinquent water, sewer, and sewage treatment charges. The agreement calls for a collection commission, plus other administrative and legal proceeding costs, to be added to all Authority delinquent claims not paid within 90 days of the initial billing date. If fully collected, the Authority stands to collect 100% of delinquent balances without incurring a collection agency fee. JTS collected for the Authority \$1.7 million during 2015.
- In January of 2010, the Authority began assessing a 5% Distribution Infrastructure System Charge (DISC) on all bills, increasing to 7% in 2011. This charge is applied to the water and sewer conveyance components of the invoice and is dedicated to system improvements and capital needs. 2015 DISC revenues were \$7.0 million. The \$5.3 million in DISC expenditures for 2015 included water and sewer relays, catch basin replacement, and manhole, catch basin, and sewer line point repair.
- The Authority has become increasingly focused on the environmental impact that excess storm water and sewage from combined sewer overflows during heavy rainfall events has on Pittsburgh's rivers and streams. The City of Pittsburgh and the Authority are working together in the spirit of intergovernmental cooperation to achieve full compliance with the requirements of the Federal Clean Water Act and the Pennsylvania Clean Streams Act by incorporating green infrastructure (GI) into water quality solutions where feasible while striving to engage the community, encourage economic development, and provide environmental leadership. The Authority created new positions in its engineering department to address the full range of technical, institutional, and public outreach issues associated with this process.
- The Authority started a Green Infrastructure Grant Program in 2015. The Authority awarded \$250,000 in grants to 17 GI projects across the City of Pittsburgh this year. This inaugural grant program encouraged property owners and community organizations to manage storm water. Of the total 38 applications received, the Authority awarded ten small grants and seven matching grants. The grant projects incorporated structural and educational projects that have a combined total project value of over \$1.0 million. The Authority estimates that, when completed, these projects will manage between 3.5 and 4.0 million gallons of storm water every year.
- The Engineering Department has completed its implementation of e-Builder, a Project Management Information System (PMIS). Authority Project Managers now have a centralized location for document storage and tools that allow for internal and external members of a project to communicate seamlessly. Project management within e-Builder will improve the capital program execution by streamlining the processes and reducing project costs. As we continue to design automation of processes while incorporating best industry practices, we have lowered the overall number of days to pay invoices/pay applications. These processes have greatly improved efficiency of the contract life cycle, thus allowing a significant increase to be spent on capital projects, helping the Authority

to improve its water and sewer system reliability and helping PWSA to ensure we meet the needs and expectations of our customers.

- In 2014, the Authority recognized that its existing Advanced Meter Infrastructure was over 15 years old and was in need of upgrade and/or replacement. It was decided to replace the existing technology with a new system provided by Sensus USA, Inc. The cost of \$7.5 million for the new system will be paid over a 15-year period from operations. As of the end of 2015, roughly 77,100 Meter Interface Units have been replaced.
- Debt service coverage was 1.43 in 2015 and 1.52 in 2014. These coverage factors exceed the 1.2 coverage ratio required under the bond indenture.
- The Authority expended \$44.1 million on Bond and Pennvest capital projects in 2015, an increase of \$24.1 million over the \$20.0 million expended in 2014. Of \$50.4 million budgeted in Pennvest loans, \$35.5 million was spent in prior years, \$2.6 million was spent in 2015, and \$12.3 million of approved funding remained available. The Authority increased its capital project proceeds with the issuance of the \$75 million 2013 bond issue, spending \$13.9 million in 2014 and \$41.5 million in 2015, with the remaining \$19.6 million encumbered at year-end. The above 2013 bond expenditures include \$4.6 million in 2014 and \$3.3 million in 2015 for reimbursement to the DISC program for funding of projects that would have historically been paid for with capital dollars.
- The Term Rate mode on the series 2008C1-D bonds ended on September 1, 2015. And on that date the series 2008C1-D converted to the "LIBOR-Based Interest Rate Mod - BA." There were not any changes to the swaps at that time.
- The City of Pittsburgh is the largest of the 83 municipalities that convey raw sewage to ALCOSAN for treatment. In January 2004, the Authority and the City of Pittsburgh executed a Consent Order and Agreement (Order) regarding sanitary and combined sewer overflows within the City of Pittsburgh. The other signatories to the Order are the Pennsylvania Department of Environmental Protection (DEP) and Allegheny County Health Department, which executed the Order on April 21, 2004. The Long-Term Control Plan to address combined and sanitary sewer overflows required under the order was submitted on schedule on July 31, 2013. Due to the complexities of regional governance, the Authority's regulatory body was switched from the DEP to the US Environmental Protection Agency (EPA). On January 21, 2016 the EPA issued a Clean Water Act Section 308 Information Request to the Authority. We understand the nature of the request is to provide a jurisdictional basis for EPA to engage the Authority and the City of Pittsburgh in an enforcement action by consent. We intend that through such an action, we can more fully participate in the implementation of interim regional wet weather activities, controls, and improvements. We further understand that such an action will also permit the Authority and the City of Pittsburgh to participate more fully in the identification and implementation of any final wet weather control measures for the region. We have fulfilled the first portion of the 308 request, which was due on March 31, 2016. The second phase of the request requires a source reduction study be completed by December 1, 2016 and demonstration projects constructed by December 1, 2017.

The 308 Requirement does not contain fines or penalties for past non-compliance, but does propose binding obligations for work on a going forward basis. The Authority continues to meet the requirements of the request. See Note 14 – Consent Agreement for additional details.

Financial Highlights 2014 and 2013

In 2014, operating income increased by 15% or \$5.1 million to \$38.5 million. However, the Authority experienced an overall net loss of \$4.0 million due to swap valuation and debt reissuance items, down from a \$10.6 million net gain in 2013. Below are the 2014 financial highlights:

Total operating revenues in 2014 were up \$21.6 million or 13% to \$164.3 million when compared to 2013. Wastewater treatment revenues increased \$7.4 million. Water and sewer conveyance revenues increased \$12.2 million from 2014. Both of these increases are attributable to rate increases by both the Authority and ALCOSAN. Other operating income increased by \$2.0 million from 2013, as overall development in the City of Pittsburgh resulted in additional tap fees and other permitting related items.

Total non-operating expenses increased by \$19.8 million, mostly driven by a turnaround in the fair market value of the 2008C2 investment swap from an \$11.6 gain in 2013 to a \$10.4 million loss in 2014 and a one-time recognized \$9.5 million charge due to restructuring the 2008C swaps in November 2014. Both of these debt items were non-cash. Donated property revenue of \$14.7 million, an increase of over \$14.0 million when compared to 2013, was again driven by increased development. Interest revenue decreased by \$0.1 million to \$0.2 million due to continuing low market rates, and debt costs increased by \$4.1 million due to additional debt service requirements tied to the 2013 bond issue and new Pennvest loans.

Total operating expenses increased in 2014 to \$125.8 million compared to \$109.3 million in 2013. Significant operating expenses included the following factors:

- Salary and employee benefit expenses were up \$1.2 million or 7%. The increase is attributed to an average salary rate increase of 3% and a 9% increase in benefit costs.

The majority of Authority employees are represented by one of three labor unions. The Pittsburgh Joint Collective Bargaining Committee (PJCBC) represents blue-collar employees. The American Federation of State, County and Municipal Employees (AFSCME) represents Local 2719 [white-collar] employees and Local 2037 [foremen]. A new three-year agreement with AFSCME became effective January 1, 2014 and will expire December 31, 2016. A four-year agreement with the PJCBC became effective January 1, 2013, and expires December 31, 2016.

- Overall direct operating expenses, excluding salaries and benefits, increased by \$10.3 million to \$64.9 million in 2014 or 19% from \$54.6 million in 2013. Wastewater treatment expense increased by \$6.8 million or 15% to \$52.8 million when compared to \$46.0 million in 2013, due to ALCOSAN's rate increase. Chemicals expense increased by \$0.3 million over 2013. Equipment expenses decreased by \$0.2 million. Repairs & maintenance increased by \$2.6 million from 2013, primarily due to a \$2.4 million increase in surface restoration caused by harsh winter weather. Field inspection expenses increased by \$0.4 million due to increased Authority and developer projects in 2014.
- Overall general and administrative expenses increased 23.6%, to \$17.5 million from \$14.1 million in 2013. Significant expense reductions were a \$0.1 million drop in contingencies, \$0.1 in computer software, and a \$0.2 million reduction in legal. Significant expense increases were \$1.5 million in consultants, \$0.2 million in electric, \$0.1 million in claims, and a \$0.3 million increase in bad debt.
- Overall other expenses increased 7.1% or \$4.1 million to \$62.0 million in 2014 from \$57.9 million in 2013. Non-city water subsidy to Pennsylvania American Water Company (PAWC) increased 41% or \$0.8 million to \$2.9 million in 2014 compared to \$2.0 million in 2013. Expense on long-term debt increased 21.7% or \$6.1 million to \$34.5 million in 2014 compared to \$28.3 million in 2013. Debt credit facility and liquidity fees decreased \$1.6 million to \$2.2 million in 2014, down from \$3.8 million in the prior year.
- In 2014, cash collections increased by \$17.6 million, with \$158.2 million collected from billings compared to \$140.6 million in 2013, due to rate increases by both the Authority and ALCOSAN.

Other 2014 highlights include:

- In early 2012, the Authority decided to engage an outside management company to direct its operations. After an extensive search, the Authority selected and engaged Veolia Water North America (Veolia), a subsidiary of Veolia Environnement S.A., the world's largest supplier of water services. Veolia was engaged for a one-year period beginning in July 2012, with an optional six-month renewal available at the Authority's discretion. Said extension was granted in mid-2013. The agreement was extended further through December of 2014 and again through 2015 with two optional six-month renewals for 2016.
- As part of the engagement of Veolia to manage the Authority, diagnostic studies were performed by Veolia of operations and expenditures. As a result of these evaluations, a number of operational improvement initiatives (known as Key Performance Indicators) and monetary efficiency initiatives (known as Opex Initiatives) were developed and presented to the Authority. It was felt that with implementation of these initiatives, as approved by the Authority, significant operational efficiencies and cost savings would be reached. In 2014, Veolia received approximately \$3.1 million in shared savings and operational improvement performance payments from these initiatives. The Authority did generate millions in expense savings and additional revenues per the terms of these initiatives.
- In 2010, it was decided to award a new Enterprise Resource Program (ERP) contract to Cogsdale Corporation, a Microsoft Dynamics Gold partner. The implementation proceeded in 2011, with the Finance module going live in January 2012. Work was ongoing in 2012 and 2013 for implementing Cogsdale's Customer Service Module (CSM), which went live in late 2013. Additional CSM module implementation continued through 2014, with substantial completion by year-end.
- The Authority continued its relationship with Jordan Tax Service, Inc. (JTS) as its Collector and the law firm of Goehring, Rutter & Boehm, P.C. as Special Legal Counsel for the collection of delinquent water, sewer, and sewage treatment charges. The agreement calls for a collection commission, plus other administrative and legal proceeding costs, to be added to all Authority delinquent claims not paid within 90 days of the initial billing date. If fully collected, the Authority stands to collect 100% of delinquent balances without incurring a collection agency fee. JTS collected for the Authority \$1.5 million during 2014.
- In January of 2010, the Authority began assessing a 5% Distribution Infrastructure System Charge (DISC) on all bills, increasing to 7% in 2011. This charge is applied to the water and sewer conveyance components of the invoice and is dedicated to system improvements and capital needs. The DISC collection total in 2010 was \$4.2 million, with no expenditures. It was decided to allow funds to accumulate the first year, and then make expenditures from monies so received. 2014 revenues for DISC charges were \$6.6 million. The expenditures for 2014 included water and sewer relays, catch basin replacement, and manhole, catch basin, and sewer line point repair.
- The Authority has become increasingly focused on the environmental impact that excess storm water and sewage from combined sewer overflows during heavy rainfall events has on Pittsburgh's rivers and streams. The Authority believes the most cost effective and beneficial tactic for addressing this issue is a holistic "green first" option involving green infrastructure (GI) and integrated watershed planning within an adaptive management process. The City of Pittsburgh and the Authority are working together in the spirit of intergovernmental cooperation to achieve full compliance with the requirements of the Federal Clean Water Act and the Pennsylvania Clean Streams Act by incorporating GI into water quality solutions where feasible while striving to engage the community, encourage economic development, and provide environmental leadership. The Authority in 2014 created new positions in its engineering department to address the full range of technical, institutional, and public outreach issues associated with this process.

- The Authority's Green Infrastructure department and select GI projects in 2014 have been funded in part from a variety of federal, state, and local grants. The additional staff dedicated to the GI program is supported with a total of \$.238 million in funds awarded by the R. K. Mellon Foundation, the Pittsburgh Foundation, Colcom, and Heinz Endowments. GI storm water management projects in Squirrel Hill and Schenley Park have been made possible with over \$0.5 million in grants from the EPA and matching support from ALCOSAN. Other support for GI projects has been garnered from partnerships with agencies such as the Pittsburgh Parks Conservancy, Penn State Center, US Army Corps of Engineers, and a variety of local community development organizations.
- In order to reduce costs and add operational efficiencies to its construction management and payment processes for capital and operations projects, the Authority decided to purchase and implement the use of e-Builder, a leading web-based construction management software platform. The project was begun in early fall 2014 and the first phase went live at the start of 2015. In addition to management and payment benefits, it is felt that this software will also assist in limiting potential future change orders on Authority projects.
- The Authority in 2014 recognized that its existing Advanced Meter Infrastructure (AMI) was over 15 years old and was in need of upgrade and/or replacement. It was decided in spring of 2014 to replace the existing technology with a new system provided by Sensus USA, Inc. The cost of \$7.5 million for the new system will be paid over a 15-year period from operations. As of the end of 2014, roughly 72,000 Meter Interface Units (MIUs) had been replaced, with full system functionality projected by midsummer 2015.
- Debt service coverage in 2014 was 1.83 in 2014 and 1.99 in 2013. These coverage factors exceed the 1.2 coverage factor required under the bond covenant.
- The Authority expended \$20.0 million on Bond and Pennvest capital projects in 2014, an increase of \$7.1 million over the \$12.9 million expended in 2013. Of \$42.3 million budgeted in Pennvest loans, \$22.0 million was spent in prior years, \$6.1 million was spent in 2014, and \$14.2 million of approved funding remained available. The Authority increased its capital project proceeds with the issuance of the \$75 million 2013 bond issue, spending \$13.9 million, with \$38.2 million in addition encumbered at year-end. The above 2013 bond expenditures include \$4.6 million in reimbursement to the DISC program for funding of projects that would have historically been paid for with capital dollars.
- There was a significant event regarding bond-related activity for the Authority in 2014. During November 2014, the Authority terminated the original 2008 Series 2008 C-1A, C-1B, C-1C, and C-2 swaps and reissued and restructured to bear interest based upon 70% of one month LIBOR. Those derivative instruments had an aggregate fair value of (\$9,471,392), which is considered a swap borrowing from the counterparty. This fair value reduction was recognized as a one-time non-operating expense in 2014 and will be amortized over the remaining life of the bonds as a reduction in interest expense. Further activity included renewal of Liquidity facilities on the 2008 D-2 Series bonds for three years.
- The City of Pittsburgh is the largest of the 83 municipalities that convey raw sewage to ALCOSAN for treatment. In January 2004, the Authority and the City of Pittsburgh executed a Consent Order and Agreement (Order) regarding sanitary and combined sewer overflows within the City of Pittsburgh. The other signatories to the Order are the Pennsylvania Department of Environmental Protection and Allegheny County Health Department, which executed the Order on April 21, 2004. The Long-Term Control Plan to address combined and sanitary sewer overflows required under the order was submitted on schedule on July 31, 2013 and the Authority had not received a response through year-end 2014.

The Order does not contain fines or penalties for past non-compliance, but does propose binding obligations for work on a going-forward basis. The Authority continues to meet the requirements of the Order. See Note 14 – Consent Agreement for additional details.

- The City of Pittsburgh remained under financial stress in 2014. The Authority has three agreements with the City of Pittsburgh. The Authority leases the water and sewer system under the Capital Lease, which was fully funded in 1995. The Authority makes payment to the City of Pittsburgh for direct and indirect services under the Cooperation Agreement. Under this Agreement, the Authority also funds, on behalf of the City of Pittsburgh, a rate equalization subsidy to other City water companies. Under a separate agreement, the Authority also, on behalf of the City of Pittsburgh, is required to purchase delinquent wastewater treatment receivables. The Authority is financially self-sufficient and should not be adversely affected by the financial status of the City of Pittsburgh. Any other actions by the City of Pittsburgh to increase Authority funding would require Board approval.

CONDENSED FINANCIAL STATEMENTS

CONDENSED STATEMENT OF NET POSITION

(Dollars expressed in thousands)

	December 31,		Variance	
	2015	2014	Dollars	%
Capital assets:				
Producing assets	\$ 583,344	\$ 563,949	\$ 19,395	3.44%
Construction in progress	70,204	31,233	38,971	124.78%
Restricted assets	44,734	85,868	(41,134)	-47.90%
Current assets	61,866	58,930	2,936	4.98%
Total Assets	760,148	739,980	20,168	2.73%
Deferred Outflows of Resources	106,228	100,681	5,547	5.51%
Liabilities:				
Current liabilities	63,912	60,488	3,424	5.66%
Long-term liabilities	838,209	839,303	(1,094)	-0.13%
Total Liabilities	902,121	899,791	2,330	5.53%
Net Position:				
Net investment in capital assets	(25,097)	(51,220)	26,123	-51.00%
Restricted	9,134	9,130	4	0.04%
Unrestricted	(19,782)	(17,040)	(2,742)	16.09%
Total Net Position	\$ (35,745)	\$ (59,130)	\$ 23,385	-34.87%

CONDENSED STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
(Dollars expressed in thousands)

	Year Ended December 31,		Variance	
	2015	2014	Dollars	%
Operating revenues	\$ 174,164	\$ 164,255	\$ 9,909	6.03%
Operating expenses:				
Direct operating	48,009	48,647	(638)	-1.31%
Wastewater treatment	59,963	52,782	7,181	13.61%
Cooperation Agreement	7,150	7,150	-	0.00%
Subsidy of non-customer City residents	1,786	2,875	(1,089)	-37.88%
Depreciation	14,786	14,312	474	3.31%
Total Operating Expenses	131,694	125,766	5,928	-22.27%
Operating income	42,470	38,489	3,981	28.31%
Non-operating revenues (expenses):				
Donated property	18,129	14,708	3,421	23.26%
Interest revenue	199	213	(14)	-6.57%
Interest expense and other	(37,413)	(57,406)	19,993	-34.83%
Total Non-operating Revenues (Expenses)	(19,085)	(42,485)	23,400	-18.14%
Net Gain/(Loss)	\$ 23,385	\$ (3,996)	\$ 27,381	-685.21%

Financial Condition 2015 and 2014

The Authority's financial condition in 2015 remained stable for a thirteenth consecutive year. Water utility revenues increased to \$110.5 million from \$105.3 million. The rate increase effective January 2016 as implemented in 2013 should have a positive impact on utility revenue and unrestricted cash. Total cash and cash equivalents stood at \$61.8 million at year-end 2015. Investment interest rates remain historically low, impacting return on reserves invested.

The Authority's strategic plan continues to focus on improving its financial condition, customer service, improving internal efficiencies, maintaining regulatory compliance and security, while providing an environment that encourages employee development.

CONDENSED FINANCIAL STATEMENTS

CONDENSED STATEMENT OF NET POSITION

(Dollars expressed in thousands)

	December 31,		Variance	
	2014	2013	Dollars	%
Capital assets:			Increase (Decrease)	
Producing assets	\$ 563,949	\$ 547,726	\$ 16,223	2.96%
Construction in progress	31,233	24,105	7,128	29.57%
Restricted assets	85,868	97,557	(11,689)	-11.98%
Current assets	58,930	57,705	1,225	2.12%
Total Assets	739,980	727,093	12,887	1.77%
Total Deferred Outflows of Resources	100,681	59,146	41,535	70.22%
Liabilities:				
Current liabilities	60,488	52,994	7,494	14.14%
Long-term liabilities	839,303	788,379	50,924	6.46%
Total Liabilities	899,791	841,373	58,418	6.94%
Net Position:				
Net investment in capital assets	(51,220)	(55,316)	4,096	7.40%
Restricted for capital activity and debt service	9,130	9,125	5	0.05%
Unrestricted	(17,040)	(8,943)	(8,097)	-90.54%
Total Net Position	\$ (59,130)	\$ (55,134)	\$ (3,996)	-7.25%

CONDENSED STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

(Dollars expressed in thousands)

	Year Ended December 31,		Variance	
	2014	2013	Dollars	%
Operating revenues	\$ 164,255	\$ 142,657	\$ 21,598	15.14%
Operating expenses:				
Direct operating	48,647	40,667	7,980	19.62%
Wastewater treatment	52,782	45,969	6,813	14.82%
Cooperation Agreement	7,150	7,150	-	0.0%
Subsidy of non-customer City residents	2,875	2,037	838	41.14%
Depreciation	14,312	13,431	881	6.56%
Total Operating Expenses	125,766	109,254	16,512	15.11%
Operating Income	38,489	33,403	5,086	15.23%
Non-operating revenues (expenses):				
Donated property	14,708	616	14,092	2,287.66%
Interest revenue	213	278	(65)	-23.38%
Interest expense and other	(57,406)	(23,673)	(33,733)	142.50%
Total Non-operating Revenues (Expenses)	(42,485)	(22,779)	-19,706	86.51%
Net Gain/(Loss)	\$ (3,996)	\$ 10,624	\$ -14,620	-137.61%

Financial Condition 2014 and 2013

The Authority's financial condition in 2014 remained stable for a twelfth consecutive year. Water utility revenues increased to \$105.3 million from \$93.1 million. The rate increase effective January 2015 as implemented in 2013 should have a positive impact on utility revenue and unrestricted cash. Total cash and cash equivalents stood at \$105.0 million at year-end 2014. Investment interest rates remain historically low, impacting return on reserves invested.

The Authority's strategic plan continues to focus on improving its financial condition, customer service, improving internal efficiencies, maintaining regulatory compliance and security, while providing an environment that encourages employee development.

Requests for Information

This financial report is designed to provide a general overview of the Authority's finances for all those with an interest in its finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Executive Director, Penn Liberty Plaza I, 1200 Penn Ave., Pittsburgh, PA 15222.

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF NET POSITION

(Dollars expressed in thousands)

DECEMBER 31, 2015 AND 2014

Assets	2015	2014
Current assets:		
Cash and cash equivalents	\$ 28,269	\$ 31,219
Accounts receivable, net:		
Water:		
Billed	8,127	8,353
Unbilled	4,879	5,292
Total water	13,006	13,645
Wastewater treatment:		
Billed	8,774	5,919
Unbilled	7,768	3,700
Total wastewater treatment	16,542	9,619
Other receivables	695	739
Total accounts receivable, net	30,243	24,003
Prepaid expenses	180	496
Inventory	3,174	3,212
Total current assets	61,866	58,930
Noncurrent assets:		
Restricted assets:		
Cash and cash equivalents	33,553	73,814
Investments	11,181	12,054
Total restricted assets	44,734	85,868
Capital assets, not being depreciated	70,204	31,233
Capital assets, net of accumulated depreciation	583,344	563,949
Total noncurrent assets	698,282	681,050
Total Assets	760,148	739,980
Deferred Outflows of Resources		
Deferred charge on refunding	27,728	30,501
Accumulated decrease in fair value of hedging derivatives	78,500	70,180
Total Deferred Outflows of Resources	106,228	100,681

(Continued)

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

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF NET POSITION

(Dollars expressed in thousands)

DECEMBER 31, 2015 AND 2014

(Continued)

	<u>2015</u>	<u>2014</u>
Liabilities		
Current liabilities:		
Bonds and loans payable	22,099	20,993
Accrued payroll and related obligations	764	656
Accounts payable wastewater treatment	19,788	18,148
Accounts payable and other accrued expenses	6,530	6,595
Accounts payable from restricted assets	4,856	4,457
Accrued interest payable from restricted assets	9,875	9,639
Total current liabilities	<u>63,912</u>	<u>60,488</u>
Noncurrent liabilities:		
Unearned revenue	207	228
Accrued payroll and related obligations	750	1,129
Swap liability	96,065	87,197
Bonds and loans payable	741,187	750,749
Total noncurrent liabilities	<u>838,209</u>	<u>839,303</u>
Total Liabilities	<u>902,121</u>	<u>899,791</u>
Net Position		
Net investment in capital assets	(25,097)	(51,220)
Restricted	9,134	9,130
Unrestricted	(19,782)	(17,040)
Total Net Position	<u>\$ (35,745)</u>	<u>\$ (59,130)</u>

(Concluded)

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

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

(Dollars expressed in thousands)

YEARS ENDED DECEMBER 31, 2015 AND 2014

	2015	2014
Operating Revenues:		
Residential, commercial, and industrial water sales	\$ 110,523	\$ 105,252
Wastewater treatment	59,963	54,357
Other	3,678	4,646
Total operating revenues	174,164	164,255
Operating Expenses:		
Direct operating expenses	48,009	48,647
Wastewater treatment	59,963	52,782
Cooperation agreement operating expenses:		
Indirect cost allocation - sewer conveyance	3,000	3,000
Indirect cost allocation - water	4,150	4,150
Expense of water provided by other entities:		
Subsidy of customers located in the City	1,786	2,875
Depreciation	14,786	14,312
Total operating expenses	131,694	125,766
Operating Income	42,470	38,489
Non-operating Revenues (Expenses):		
Donated property	18,129	14,708
Interest revenue	199	213
Investment income - change in fair market value of swap	(548)	(10,294)
Swap termination	-	(9,471)
Interest and amortization	(36,865)	(37,641)
Total non-operating revenues (expenses)	(19,085)	(42,485)
Net Income (Loss)	23,385	(3,996)
Net Position:		
Beginning of year	(59,130)	(55,134)
End of year	\$ (35,745)	\$ (59,130)

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

PITTSBURGH WATER AND SEWER AUTHORITY

STATEMENTS OF CASH FLOWS

(Dollars expressed in thousands)

YEARS ENDED DECEMBER 31, 2015 AND 2014

	2015	2014
Cash Flows From Operating Activities:		
Cash received from customers	\$ 167,924	\$ 161,538
Cash paid to suppliers and employees and customer refunds	(47,613)	(47,716)
Cash paid to City of Pittsburgh under the Cooperation Agreement	(7,150)	(7,150)
Cash paid to other water companies for subsidy of customers located in the City of Pittsburgh	(1,786)	(2,875)
Cash paid to ALCOSAN for wastewater treatment	(58,323)	(50,702)
Net cash provided by (used in) operating activities	53,052	53,095
Cash Flows From Investing Activities:		
Purchase of investment securities	(93,688)	(59,410)
Proceeds from sale and maturities of investment securities	93,820	59,607
Interest income	199	213
Net cash provided by (used in) investing activities	331	410
Cash Flows From Capital and Related Financing Activities:		
Purchase/construction of property, plant, and equipment	(47,229)	(22,955)
Proceeds from Pennvest Loans	3,462	4,963
Principal payments on debt	(21,201)	(19,249)
Principal payments on capital lease	(280)	-
SWAP receipts	340	171
SWAP payments	(12,245)	(13,418)
Liquidity and remarketing fees	(1,415)	(2,630)
Interest paid on borrowings	(18,026)	(15,023)
Net cash provided by (used in) capital and related financing activities	(96,594)	(68,141)
Increase (Decrease) in Cash and Cash Equivalents	(43,211)	(14,636)
Cash and Cash Equivalents:		
Beginning of year	105,033	119,669
End of year	\$ 61,822	\$ 105,033
Consists of:		
Restricted cash and cash equivalents	\$ 33,553	\$ 73,814
Unrestricted cash and cash equivalents	28,269	31,219
	\$ 61,822	\$ 105,033
Reconciliation of Operating Income to Net Cash Provided by (Used in) Operating Activities:		
Operating income	\$ 42,470	\$ 38,489
Adjustments to reconcile operating income to net cash provided by (used in) operating activities:		
Depreciation	14,786	14,312
Reserve for uncollectible amounts	2,789	264
Change in:		
Accounts receivable - water and wastewater	(9,073)	(3,031)
Other accounts receivable	44	50
Prepaid expenses	316	(63)
Inventory	38	(982)
Accounts payable wastewater treatment	1,640	2,080
Accounts payable and other accrued expenses	334	1,573
Accrued payroll and related obligations	(271)	424
Unearned revenue	(21)	(21)
Net cash provided by (used in) operating activities	\$ 53,052	\$ 53,095
Schedule of Non-cash Capital and Related Financing Activities		
Donated property	\$ 18,129	\$ 14,708
Capital assets acquired through capital lease	7,445	-

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

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

1. ORGANIZATION

The Pittsburgh Water and Sewer Authority (Authority) provides water to approximately 80,000 residential, commercial, and industrial customers located in the City of Pittsburgh (City), Pennsylvania, and collects wastewater throughout the City.

A Board of Directors (Board) appointed by the Mayor of the City governs the Authority.

The Authority is a body politic and corporate, organized and existing under the Pennsylvania Municipalities Authorities Act. The Authority was established by the City in 1984 to assume responsibility from the City for management, operation, maintenance, and improvement of virtually the entire City water supply, distribution, and wastewater collection systems (the "Water and Wastewater System" or "System"). The Authority's term of existence is through 2045. At inception, the City contributed \$5.3 million to the Authority in the form of customer accounts receivable.

The Authority has the right to establish user fees and charges without being subject to the approval of any department, board, or agency of Pennsylvania or the City. The Authority is also authorized to issue bonds and notes payable solely from the Authority's revenues.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

These financial statements present the financial position, changes in net position, and cash flows of the Authority. The Authority is a component unit of the City in accordance with applicable guidance. The Authority's financial statements are not intended to present the financial position or results of operations of the City taken as a whole.

Basis of Accounting and Measurement Focus

The accompanying financial statements have been prepared using the economic resources measurement focus and the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America, as prescribed by the Governmental Accounting Standards Board (GASB). Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

The Authority functions as a Business-Type Activity, as defined by GASB.

Classification of Net Position

The Authority's net position is classified into three components – net investment in capital assets; restricted; and unrestricted. These classifications are defined as follows:

- Net investment in capital assets – This component of net position consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are also included in this component of net position. If there are significant unspent related debt proceeds or deferred inflows of resources at the end of the reporting period, the portion of the debt or deferred inflows of resources attributable to the unspent amount is not included in the calculation of net investment in capital assets. Instead, that portion of the debt or deferred inflow of resources is included in the same net position component (restricted or unrestricted) as the unspent amount.
- Restricted – This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally, a liability relates to restricted assets if the asset results from a resource flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted assets reported.
- Unrestricted – This component of net position is the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted components of net position.

When an expense is incurred that can be paid using either restricted or unrestricted resources, the Authority's policy is to first apply the expense towards restricted resources and then towards unrestricted resources.

Cash and Cash Equivalents

Cash and cash equivalents include all highly liquid investments, both restricted and unrestricted, with maturity of three months or less at date of purchase.

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

Premiums and Discounts

Original issue bond premiums and discounts are amortized over the life of the related bonds using the effective interest method of amortization. The unamortized balance of premiums and discounts is presented net on the statements of net position as a decrease to bonds payable.

Deferred Refunding Loss

In accordance with applicable guidance, the excess of the reacquisition price over the net carrying amount of refunded debt is recorded as a deferred outflow of resources on the statements of net position and amortized as a component of interest expense over the shorter of the term of the refunding issue or refunded bonds.

Remarketing, Liquidity, and Letter of Credit Fees

Associated with the Authority's variable rate bonds, the Authority pays various fees to periodically remarket the bonds and to third parties to provide liquidity in the event that the Authority is unable to remarket the variable rate bonds and needs to repurchase the bonds on a temporary basis until they can be later remarketed. These fees are generally paid quarterly and are calculated as a percentage of the outstanding par amount of the variable rate bonds.

Capital Assets

Capital assets owned by the Authority are recorded at cost including that portion of deferred interest that is ultimately capitalized. Depreciation of capital assets owned by the Authority is provided on the straight-line method based on the estimated useful lives of the various classes of assets. Utility assets have estimated useful lives ranging from 30 to 70 years. Non-utility assets have estimated useful lives ranging from 5 to 10 years.

The Authority also receives donated property relating mostly to dedicated water and sewer lines. These assets are capitalized at their estimated fair value based on what it would have cost the Authority to construct the asset, and depreciated in accordance with the estimated useful lives noted above.

The water and sewer system represents assets leased from the City. Amortization of capital lease assets is provided on the straight-line basis applying an estimated average remaining useful life from the inception of the lease.

Maintenance and repairs are charged to expense as incurred.

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of financial position reports a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of net position that applies to a future period(s) and so will *not* be recognized as an outflow of resources (expense) until then.

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflow of resources*, represents an acquisition of net position that applies to a future period(s) and so will *not* be recognized as an inflow of resources (revenue) until that time. The Authority's financial statements currently do not include that element.

Clarification of Revenues

The Authority has classified its revenues as either operating or non-operating revenues according to the following criteria:

- Operating revenues – Operating revenues include activities that have the characteristics of exchange transactions, such as residential, commercial, industrial water sales and wastewater treatment.
- Non-operating revenues – Non-operating revenues include activities that have the characteristics of non-exchange transactions, such as interest income and other revenue sources.

Compensated Absences

A liability for vacation, personal, and sick days is accrued when related benefits are attributable to services rendered and to the extent it is probable that the Authority will ultimately compensate employees.

Inventory

Inventory is stated at cost, on a moving average price basis.

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

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

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.

Pending Pronouncements

GASB has issued the following Statements, which will become effective in future years as shown below. Management has not yet determined the impact of these Statements on the Authority's financial statements.

GASB Statement No. 72, "*Fair Value Measurement and Application*," effective for fiscal years beginning after June 15, 2015 (the Authority's financial statements for the year ending December 31, 2016). This Statement addresses accounting and financial reporting issues related to fair value measurements.

GASB Statement No. 76, "*Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*," effective for fiscal years beginning after June 15, 2015 (the Authority's financial statements for the year ending December 31, 2016). This Statement 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 Statement No. 55.

GASB Statement No. 77, "*Tax Abatement Disclosures*," effective for fiscal years beginning after December 15, 2015 (the Authority's financial statements for the year ending December 31, 2017). This Statement requires state and local governments for the first time to disclose information about tax abatement agreements, and is designed to provide financial statement users with essential information about these agreements and the impact that they have on a government's finances.

GASB Statement No. 79, "*Certain External Investment Pools and Pool Participants*," effective for fiscal years beginning after June 15, 2015 (the Authority's 2016 fiscal year). This statement addresses accounting and reporting for certain external investment pools and pool participants. Specifically, it establishes criteria for an external investment pool to qualify for the election to measure all of its investments at amortized cost for financial reporting purposes.

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

GASB Statement No. 80, “*Blending Requirements for Certain Component Units – an amendment of GASB Statement No. 14,*” effective for periods beginning after June 15, 2016 (the Authority’s 2017 fiscal year). The objective of this statement is to improve financial reporting by clarifying the financial statement presentation requirements for certain component units.

3. TRANSACTIONS WITH THE CITY OF PITTSBURGH

During July 1995 the City and the Authority entered into a Capital Lease Agreement and a Cooperation Agreement (collectively referred to as the "Agreements").

Cooperation Agreement

Under the terms of the Cooperation Agreement, City water department employees became employees of the Authority. As a result, the Authority assumed various personnel-related obligations from the City's water department. Other direct costs of the System's water operations are now generally paid directly by the Authority under the Cooperation Agreement, rather than paid by the City and reimbursed by the Authority. The City provides the Authority with various services in accordance with the Cooperation Agreement and the Authority reimburses the City for direct and indirect costs attributed by the City to the operation and maintenance of the System.

Under the Agreements, the Authority provides up to 600 million gallons of water annually for the City's use without charge. Also, the Authority assumes the City’s obligation for the cost of subsidizing water service to residents of the City situated beyond the Authority's service area so that those water users pay charges that mirror the rates of the Authority.

System Leases

The Capital Lease Agreement stipulates minimum lease payments of approximately \$101 million, all of which were satisfied during the initial three years of the capital lease.

The Capital Lease Agreement has a term of thirty years and provides the Authority with the option to purchase the System for one dollar in 2025.

Pension

Employees of the Authority participate in the City's Municipal Pension Fund Plan (Plan).

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

Employees who became members of the Plan prior to January 1, 1988 are required to contribute 5% of pre-tax pay. Those joining thereafter are required to contribute 4%. The Authority's 2015 and 2014 payroll covered by the Plan was approximately \$12,782 and \$12,538, respectively. Employee contributions for the years 2015 and 2014 amounted to \$519 and \$515, respectively.

The City's obligations relative to the Plan are determined in accordance with various Pennsylvania statutes. The extent of the Authority's participation in such obligations with respect to those former City employees whose membership continued upon becoming employees of the Authority is determined by the shared interpretation of the City and Authority of the intent of the Cooperation Agreement.

Uncertainty exists about the future obligation of the Authority and its employees to make contributions to the Plan. Such contributions are contingent upon the continuing eligibility of the Authority's employees to participate in the City's Plan. Eligibility for ongoing employee participation in the City's Plan could end if the Authority were to introduce another pension plan. At this time, the Authority and City have no definite plans to establish another pension plan for the Authority, other than an agreement in principle that the Authority should have its own plan in the future. Future obligations of the Authority to make contributions to the Plan may also be subject to other amendments of the existing arrangement agreed-upon by the Authority and the City.

Normal retirement benefits are available upon attainment of age sixty and completion of twenty service years. Early retirement benefits are available upon attainment of age fifty and completion of eight service years. Early retirement benefits may be deferred until age sixty or may be obtained upon retirement at a reduced level. A member who terminates employment after attaining age forty and completing eight service years can sustain eligibility for benefits by continuing contributions through age fifty. A member who terminates employment after attaining fifteen service years, but has been a member since before January 1, 1975, can be vested by continuing contributions through age fifty.

Retirement benefits for employees who were members of the Plan are based upon a percentage of either three-year or four-year average pay, depending on date of hire, subject to certain specified minimum monthly benefit amounts. Special membership and benefit rules apply to those experiencing disability.

The "net pension liability" is an actuarial present value of credited projected benefits (a standardized measure for financial statement disclosure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

future by the Plan as a result of members' service to date) less the pension plan's net position available for paying such benefits. The measure is intended to help users assess the Plan's funding status on a going concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among public employee retirement systems. The Plan has not reported or attributed measurements of assets or the net pension liability on the basis of the group of members who are Authority employees.

Additional information about the Plan, including disclosures related to the implementation of GASB Statements No. 68 and 71, and required supplementary information showing the Plan's progress in accumulating sufficient assets to pay benefits when due is presented in the City's Comprehensive Annual Financial Report.

4. REVENUE AND ACCOUNTS RECEIVABLE

Water

Water sales revenue is recognized as earned during the period when water is supplied to customers. Customers are billed on a monthly billing cycle by the Authority based on actual or estimated meter readings. The Authority recognizes unbilled accounts receivable for water service provided prior to year-end that is billed during the following year.

Water accounts receivable are presented net of a reserve for uncollectible amounts. This reserve, based on an analytical review of projected monthly active accounts receivables balances, is recognized coincident with recognition of revenue. At December 31, 2015 and 2014, the reserve for uncollectible water accounts was approximately \$14.57 million and \$13.22 million, respectively. The Authority has rights to utilize collection agencies, service terminations, liens, and real property sales to protect its interests, limit further losses, and motivate payments from delinquent customers.

Wastewater Treatment

Although the Authority does not provide wastewater treatment, it assumed responsibility for certain wastewater treatment revenue and expenses beginning in 1996. Effective May 2004, the Authority began direct billing City residents for current and delinquent wastewater treatment charges and remitting to ALCOSAN the aggregate amount of service charges billed. Wastewater treatment activity and the related assets and liabilities appear on the statements of revenue, expenses and changes in net position and the statements of net position, respectively. In 2015, certain wastewater treatment only accounts were not timely

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

billed due to issues with the Authority's billing process. The related estimated amount of unbilled accounts receivable at year-end has been recorded on the statement of net position. At December 31, 2015 and 2014, the reserve for uncollectible wastewater accounts was approximately \$7.20 million and \$5.76 million, respectively.

5. CAPITAL ASSETS

Capital assets consisted of the following at December 31, 2015 and 2014:

	Balance at January 1, 2015	Additions	Reclassifications/ Transfers	Balance at December 31, 2015
Capital assets, not being depreciated:				
Construction in progress	\$ 31,233	\$ 46,914	\$ (7,943)	\$ 70,204
Capital assets, being depreciated:				
Utility assets	802,961	34,106	-	837,067
Non-utility assets	22,120	75	-	22,195
Total capital assets, being depreciated	825,081	34,181	-	859,262
Less accumulated depreciation	(261,132)	(14,786)	-	(275,918)
Total capital assets, being depreciated, net	563,949	19,395	-	583,344
Total capital assets	<u>\$ 595,182</u>	<u>\$ 66,309</u>	<u>\$ (7,943)</u>	<u>\$ 653,548</u>
	Balance at January 1, 2014	Additions	Reclassifications/ Transfers	Balance at December 31, 2014
Capital assets, not being depreciated:				
Construction in progress	\$ 24,105	\$ 22,276	\$ (15,148)	\$ 31,233
Capital assets, being depreciated:				
Utility assets	772,596	30,365	-	802,961
Non-utility assets	21,950	170	-	22,120
Total capital assets, being depreciated	794,546	30,535	-	825,081
Less accumulated depreciation	(246,820)	(14,312)	-	(261,132)
Total capital assets, being depreciated, net	547,726	16,223	-	563,949
Total capital assets	<u>\$ 571,831</u>	<u>\$ 38,499</u>	<u>\$ (15,148)</u>	<u>\$ 595,182</u>

During 2015 and 2014, the Authority received donated utility assets of \$18,129 and \$14,708, respectively, related to various development projects.

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6. PAYROLL AND RELATED OBLIGATIONS

Payroll and related obligations presented on the statements of net position are comprised of:

	Balance at December 31, 2014	Change	Balance at December 31, 2015	Current Portion
Compensated absences	\$ 639	\$ (95)	\$ 544	\$ 38
Workers' compensation	504	(250)	254	10
Payroll, withholdings, and taxes	642	74	716	716
	<u>\$ 1,785</u>	<u>\$ (271)</u>	<u>\$ 1,514</u>	<u>\$ 764</u>

	Balance at December 31, 2013	Change	Balance at December 31, 2014	Current Portion
Compensated absences	\$ 645	\$ (6)	\$ 639	\$ 14
Workers' compensation	91	413	504	-
Payroll, withholdings, and taxes	625	88	642	642
	<u>\$ 1,361</u>	<u>\$ 495</u>	<u>\$ 1,785</u>	<u>\$ 656</u>

7. BONDS AND LOANS PAYABLE

To finance its initial capital improvement program, the Authority issued Daily Adjustable Demand Water and Wastewater System Revenue Bonds of \$93,600 in 1984 ("1984 Bonds"). In 1985, the Authority issued Water and Wastewater System Adjustable Rate Tender Revenue Bonds ("1985 Bonds") that accomplished an advance refunding which defeased the 1984 Bonds. In 1986, the Authority issued \$134,700 Water and Wastewater System Adjustable Rate Tender Revenue Bonds ("1986 Bonds") to finance the next phase of its capital improvement program. In July 1991, the Authority issued \$248,329 Water and Wastewater System Revenue Refunding Bonds, Series A of 1991 ("1991 Bonds") which refunded the outstanding 1985 and 1986 Bonds. The principal of defeased 1986 Bonds still outstanding at December 31, 2015 and 2014 is \$21,225 and \$41,245, respectively.

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Series 1998

In March 1998, the Authority issued \$93,355 Series A First Lien Revenue Bonds ("1998 Series A Bonds"), the proceeds of which were used to defease through an advance refunding the entire balance of 1995 Series A Bonds outstanding (\$89,850); \$36,440 Series B First Lien Revenue Bonds ("1998 Series B Bonds"), the proceeds of which are dedicated to a capital improvements program; and \$101,970 Series C Subordinate Revenue Bonds ("1998 Series C Bonds"), the proceeds of which were used to defease through an advance refunding the entire balance of the 1995 Series B Bonds outstanding (\$98,410). At December 31, 2015 and 2014, the remaining unamortized deferred refunding loss of \$350 and \$377, respectively, on the transaction is shown as a deferred outflow of resources and will be amortized through 2037.

The 1998 Series B Bonds are capital appreciation bonds with an original issuance amount of \$36,440. The 1998 Series B Bonds have maturity values ranging from \$2.3 million to \$26.9 million from 2017 to 2030. The bonds were issued to yield rates from 5.18% to 5.3%. The 1998 Series B Bonds accrue and compound interest on a semi-annual basis and are carried at cost plus accrued interest. Total maturity value of the 1998 Series B Bonds is \$146.8 million.

The 1998B Bonds at December 31, 2015 and 2014 have carrying amounts of approximately \$81 million and \$77 million, respectively.

A portion of the 1998 Bonds is subject to optional redemption in various face amounts beginning March 1, 2008.

Series 2007

During March 2007, the Authority issued \$158,895 Series 2007 First Lien Water and Sewer Revenue Bonds ("2007 Bonds"): \$43,720 Series A of 2007 (fixed rate), \$57,585 Series B-1 of 2007 (variable rate demand), and \$57,590 Series B-2 of 2007 (variable rate demand). The purpose of this bond issue was to refund the Series 2002 and Series 2005 Bonds (the refunded bonds). Proceeds of the 2007 Bonds were invested in an escrow account to pay principal and interest on the refunded bonds from the time of refunding through the bonds' earliest optional call dates. In connection with the debt refundings, the Authority recorded a deferred refunding loss of \$6,032, which is being amortized as an adjustment to interest expense over the life of the bonds using the effective interest method. At December 31, 2015 and 2014, the remaining unamortized deferred refunding loss is \$1,201 and \$1,296, respectively. The remaining unamortized deferred refunding loss at December 31, 2015 and 2014 represents only the portion related to the Series 2007 A bonds, as the Series 2007 B-1

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and B-2 were currently refunded during 2013. At December 31, 2015 and 2014, the principal of the defeased 2005 Bonds outstanding was \$0 and \$40,845, respectively.

The 2007 A Bonds were issued at a bond premium of \$2,660, which is being amortized as an adjustment to interest expense over the life of the bonds using the effective interest method.

The 2007 Series A Bonds bear interest at rates ranging from 4.00% to 5.00%. Interest is payable in semi-annual installments on March 1 and September 1 until maturity. The 2007 Series A Bonds are subject to extraordinary redemption prior to maturity at the option of the Authority in the event of a condemnation, damage or destruction of the water and sewer system.

The 2007 Series A Bonds at December 31, 2015 and 2014, have carrying amounts of approximately \$11 million and \$16 million, respectively.

Series 2008

During May 2008, the Authority issued \$93,635 Series 2008 Water and Sewer System First Lien Revenue Bonds ("2008 Fixed Rate Bonds"): \$68,970 Series A of 2008 (fixed rate, taxable) and \$24,665 Series D-1 of 2008 (fixed rate). The purpose of this bond issue was to advance refund portions of certain maturities of the Series 1993A and Series 2003 Bonds, to fund the costs of certain capital additions, to fund the premium for the Bond Insurance Policy securing payments on 2008 Fixed Rate Bonds, and to fund termination payments on certain interest rate swaps.

During June 2008, the Authority issued \$320,515 Series 2008 Water and Sewer System First Lien Revenue Bonds ("2008 Variable Rate Demand Bonds"): \$145,495 Series B of 2008 (variable rate demand), \$51,910 Series C-1 of 2008 (variable rate demand), \$51,885 Series C-2 of 2008 (variable rate demand), and \$71,225 Series D-2 of 2008 (variable rate demand). The purpose of this bond issue was to currently refund the Series 1998A and Series 1998C, to currently refund certain maturities of the Series 2007 B-1 and Series 2007 B-2 Bonds, to advance refund certain maturities of the Series 1998B Bonds, to fund approximately \$98 million of certain capital additions, to fund the premium for the Bond Insurance Policy securing payments on 2008 Variable Rate Demand Bonds, and to fund termination payments on certain interest rate swaps.

In connection with these advance refundings, portions of the proceeds of the 2008 Bonds were deposited into irrevocable trusts with an escrow agent to provide for certain debt service payments on the refunded bonds. The advance refunding resulted in a deferred refunding

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loss of \$18,119, which is amortized as an adjustment to interest expense over the life of the 2008 Bonds using the effective interest method. At December 31, 2015 and 2014, the remaining unamortized deferred refunding loss was \$10,736 and \$12,566, respectively, and the transaction is shown as a deferred outflow of resources and will be amortized through 2037.

At December 31, 2015 and 2014, the principal of the defeased 2003 Bonds outstanding was \$9,000 and \$17,700, respectively. The maturity value of defeased 1998B compound interest bonds outstanding at December 31, 2015 and 2014 was \$19,800.

The Taxable 2008 Series A Bonds bear interest at rates ranging from 6.36% to 6.61%. Interest is payable in semi-annual installments on March 1 and September 1 until maturity. The Taxable 2008 Series A Bonds are subject to optional redemption, in whole or in part, on any date, at the option of the Authority. The Taxable 2008 Series A Bonds that mature in 2018 and 2024 are subject to mandatory sinking fund payments beginning in 2017 and continuing through 2024.

The 2008 Series D-1 Bonds (together with the Taxable 2008 Series A Bonds and the 2008 Fixed Rate Bonds) bear interest at rates ranging from 4.50% to 5.00%. Interest is payable in semi-annual installments on March 1 and September 1 until maturity. The 2008 Series D-1 Bonds which mature on or after September 1, 2019 are subject to optional redemption, in whole or in part, on any date, at the option of the Authority at any time on or after September 1, 2018, at 100% of the principal amount plus accrued interest.

The 2008 Series B, C, and D-2 Bonds (2008 Variable Rate Bonds) as originally offered bear interest at a variable rate with interest payments due on the first business day of each month. Interest rates are reset weekly; the fluctuating rate per annum to be determined by the respective remarketing agents. The weekly rate is subject to a cap of 12% per annum.

The Series B Bonds were reoffered on October 16, 2009. The reason for this reoffering was the replacement of expiring standby bond purchase agreements on these variable rate bonds with letters of credit. The reoffering did not change the interest rate mode on these variable rate bonds. During 2013, the Series B-1 letter of credit (\$72,750,000) was renewed for five years with Bank of America and will expire on October 21, 2018. During 2013, the Series B-2 letter of Credit (\$72,745,000) was renewed with Royal Bank of Canada for three years and will expire on October 21, 2016. Management believes the letter of credit will be replaced.

During August 2011, the 2008 Series C-1-A, B and C bonds were reoffered. The bonds were reoffered at a term rate of .45% through September 2012. During August 2012, the 2008

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Series C-1-A, B and C bonds were again reoffered. The bonds were reoffered at a term rate of .40% through September 2013.

During November 2009, the remaining C-1 Bonds were reoffered as the C1-D Series of \$26,910,000. These bonds were also issued in a term interest rate mode, fixing the interest rate at 2.625% through September of 2012. During August 2012, the C1-D Series were again reoffered. The bonds were reoffered at a term rate of 1.40% through August 2015. As of September 1, 2015, the bonds were converted to the LIBOR-based interest rate mode. At December 31, 2015, the interest rate was 1.868%.

During September 2013, the 2008 Series C-1A, B and C bonds were converted and reoffered. The bonds were converted to index interest rate mode. The reoffered bonds are as follows: Series C1-A \$10,000,000; Series C1-B \$10,000,000, and Series C1-C \$5,000,000.

During November 2014, the 2008 Series C-1A, B, C, and C-2 were reissued and restructured to bear interest based upon 70% of one-month LIBOR. The fixed rate paid on the swaps by the Authority was amended from 3.998% to 3.50%. Liquidity facilities provided by Bank of America Merrill Lynch (C-1A, 1B, 1C) and JP Morgan Chase (C-2) were also renewed as of November 3, 2014 and expire on September 3, 2017.

Liquidity facilities provided by PNC on the 2008 D-2 Series bonds were renewed as of July 9, 2014 and expire on August 4, 2017.

Variable Rate Bonds are subject to optional redemption, in whole or in part, on any date, at the option of the Authority. The 2008 Series B Bonds that mature on September 1 of 2039 are subject to mandatory sinking fund redemption. The 2008 Series C Bonds that mature on September 1 of 2035 are subject to mandatory sinking fund redemption. The 2008 Series D-2 Bonds that mature on September 1 of 2040 are subject to mandatory sinking fund redemption.

The 2008 Series Bonds are subject to extraordinary redemption prior to maturity at the option of the Authority in the event of a condemnation, damage or destruction of the water and sewer system.

The 2008 Fixed Rate Bonds were issued at a bond premium of \$824, which is being amortized as an adjustment to interest expense over the life of the bonds using the effective interest method.

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The 2008 Bonds at both December 31, 2015 and 2014 have carrying amounts of approximately \$414 million.

Variable rate bonds require a liquidity facility and/or a letter of credit. The Authority is subject to the risk that the bank does not renew the credit facility and/or that the pricing changes throughout the life of the bonds. Additionally, the Authority purchased insurance as a credit enhancement on the variable rate bonds. Trading spreads on the bonds and the preservation of the liquidity facility may be largely linked to the credit quality of the insurance provider. Therefore, if there is an event that would adversely affect the investor's perception of the credit quality of the insurer, the Authority could be subject to paying higher credit spreads on the bonds and risk losing the liquidity facility.

In conjunction with the issuance of the 2008 Variable Rate Bonds, the Authority entered into various pay fixed/receive variable interest rate swaps to effectively change the Bonds' variable interest rates to synthetic fixed rates. These swap transactions are discussed in Note 8: Interest Rate Swaps.

Series 2013

During December 2013, the Authority issued \$130,215 Series A First Lien Revenue Refunding Bonds ("2013 Series A Bonds"), the proceeds of which were used to defease through current refunding the entire balance of the Series 2003, Series 2007 B-1, and Series 2007 B-2 and pay certain amounts in respect of termination of certain interest rate swap agreement related to the Series 2007 B-1 and B-2 bonds; \$86,695 Series B First Lien Revenue Bonds ("2013 Series B Bonds"), the proceeds of which are to fund certain water and sewer system capital improvement projects and reimburse the Authority for certain capital expenditures paid for by the Authority. In connection with the debt refundings and swap termination, the Authority recorded a deferred refunding loss of \$16,389, which is being amortized as an adjustment to interest expense over the life of the bonds. At December 31, 2015 and 2014, the remaining unamortized deferred refunding loss was \$13,111 and \$14,750, respectively, and the transaction is shown as a deferred outflow of resources and will be amortized through 2023. The refunding was completed to reduce the Authority's debt service payments over the next 20 years by approximately \$813 and to obtain an economic gain (difference between present values of old and new debt service payments) of \$844.

The 2013 Bonds were issued at a bond premium of \$14,828, which is being amortized as an adjustment to interest expense over the life of the bonds.

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The 2013 Bonds at December 31, 2015 and 2014 have carrying amounts of approximately \$192 million and \$205 million, respectively.

State Loans

The Authority has several loans outstanding from PENNVEST for various capital projects and water and sewer improvement projects. Interest rates vary from 1.00% to 3.25%.

Capital Lease

During 2015, the Authority entered into a lease agreement as lessee for financing the acquisition of utility assets valued at \$7,445. The utility asset has a ten-year estimated useful life. Depreciation on the utility asset will begin in 2016. This lease agreement qualifies as a capital lease for accounting purposes and, therefore, has been recorded at the value of future minimum lease payments as of the inception date.

Swap Borrowing

During November 2014, the Authority terminated the original 2008 Series 2008 C-1A, C-1B, C-1C and C-2 swaps and reissued and restructured to bear interest based upon 70% of one month LIBOR. At termination, those derivative instruments had an aggregate fair value of (\$9,471,392), which is considered a swap borrowing from the counterparty. The swap borrowing is being amortized over the remaining life of the bond.

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Bonds, state loans payable, capital lease, and swap borrowing consisted of the following at December 31, 2015 and 2014:

	Balance at December 31, 2014	Additions	Accretion	Reductions	Balance at December 31, 2015
Bonds and loans payable:					
Revenue bonds:					
1998 Series B	\$ 76,977	\$ -	\$ 4,159	\$ -	\$ 81,136
2007 Series A	15,645	-	-	(4,945)	10,700
2008 Series A	68,970	-	-	-	68,970
2008 Series B-1	72,750	-	-	-	72,750
2008 Series B-2	72,745	-	-	-	72,745
2008 Series D-1	24,665	-	-	-	24,665
2008 Series D-2	71,225	-	-	-	71,225
2008 Series C-2	51,820	-	-	-	51,820
2008 Series C-1A	10,000	-	-	-	10,000
2008 Series C-1B	10,000	-	-	-	10,000
2008 Series C-1C	5,000	-	-	-	5,000
2008 Series C-1D	26,840	-	-	-	26,840
2013 Series A	118,290	-	-	(11,385)	106,905
2013 Series B	86,695	-	-	(1,815)	84,880
	<u>711,622</u>	<u>-</u>	<u>4,159</u>	<u>(18,145)</u>	<u>697,636</u>
State loans (PENNVEST)	35,645	3,462	-	(3,056)	36,051
Capital lease	-	7,445	-	(280)	7,165
Swap borrowing	9,335	-	-	(424)	8,911
	<u>756,602</u>	<u>10,907</u>	<u>4,159</u>	<u>(21,905)</u>	<u>749,763</u>
Unamortized bond (discount) premium	15,140	24	-	(1,641)	13,523
Total bonds and loans, net	<u>\$ 771,742</u>	<u>\$ 10,931</u>	<u>\$ 4,159</u>	<u>\$ (23,546)</u>	<u>\$ 763,286</u>

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	Balance at December 31, 2013	Additions	Accretion	Reductions	Balance at December 31, 2014
Bonds and loans payable:					
Revenue bonds:					
1998 Series B	\$ 73,036	\$ -	\$ 3,941	\$ -	\$ 76,977
2007 Series A	20,335	-	-	(4,690)	15,645
2008 Series A	68,970	-	-	-	68,970
2008 Series B-1	72,750	-	-	-	72,750
2008 Series B-2	72,745	-	-	-	72,745
2008 Series D-1	24,665	-	-	-	24,665
2008 Series D-2	71,225	-	-	-	71,225
2008 Series C-2	51,820	-	-	-	51,820
2008 Series C-1A	10,000	-	-	-	10,000
2008 Series C-1B	10,000	-	-	-	10,000
2008 Series C-1C	5,000	-	-	-	5,000
2008 Series C-1D	26,840	-	-	-	26,840
2013 Series A	130,215	-	-	(11,925)	118,290
2013 Series B	86,695	-	-	-	86,695
	<u>724,296</u>	<u>-</u>	<u>3,941</u>	<u>(16,615)</u>	<u>711,622</u>
State loans (PENNVEST)	33,316	4,963	-	(2,634)	35,645
Swap borrowing	-	9,471	-	(136)	9,335
	<u>757,612</u>	<u>14,434</u>	<u>3,941</u>	<u>(19,385)</u>	<u>756,602</u>
Unamortized bond (discount) premium	16,764	25	-	(1,649)	15,140
Total bonds and loans, net	<u>\$ 774,376</u>	<u>\$ 14,459</u>	<u>\$ 3,941</u>	<u>\$ (21,034)</u>	<u>\$ 771,742</u>

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Debt service payments on the Revenue Bonds at December 31, 2015 are as follows:

	Revenue Bonds		Total
	Principal	Interest	
2016	\$ 18,700	\$ 28,944	\$ 47,644
2017	17,714	29,710	47,424
2018	18,572	28,756	47,328
2019	19,454	27,765	47,219
2020	20,506	26,805	47,311
2021-2025	117,148	118,727	235,875
2026-2030	55,177	200,245	255,422
2031-2035	157,130	65,703	222,833
2036-2040	224,499	25,107	249,606
	648,900	\$ 551,762	\$ 1,200,662
Accretion	48,736		
Total	\$ 697,636		

Debt service payments of the State Loans at December 31, 2015 are as follows:

	State Loans		Total
	Principal	Interest	
2016	\$ 3,362	\$ 606	\$ 3,968
2017	3,403	622	4,025
2018	3,469	556	4,025
2019	3,536	489	4,025
2020	3,605	420	4,025
2021-2025	14,440	1,127	15,567
2026-2030	4,236	187	4,423
	\$ 36,051	\$ 4,007	\$ 40,058

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Minimum lease payments of the capital lease at December 31, 2015 are as follows:

	Capital Lease		Total
	Principal	Interest	
2016	\$ 410	\$ 237	\$ 647
2017	424	223	647
2018	438	208	646
2019	454	193	647
2020	469	178	647
2021-2025	2,601	634	3,235
2026-2029	2,369	165	2,534
	<u>\$ 7,165</u>	<u>\$ 1,838</u>	<u>\$ 9,003</u>

Amortization on the swap borrowing is as follows.

Year Ending December 31,	Principal	Interest
2016	\$ 432	\$ 190
2017	441	181
2018	451	171
2019	461	161
2020	471	151
2021-2025	2,511	599
2026-2030	2,787	314
2031-2035	1,357	50
	<u>\$ 8,911</u>	<u>\$ 1,817</u>

Interest payments were calculated for the Variable Rate Bonds using the synthetic fixed rate interest rates as described in Note 8.

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Interest and amortization expense for the years ended December 31 is as follows:

	<u>2015</u>	<u>2014</u>
Bond, loan and swap interest	\$ 29,697	\$ 29,859
Accretion	4,159	3,941
Amortization of deferred refunding loss, discounts and premiums	1,155	1,203
Liquidity and remarketing fees	1,331	2,413
Other	523	225
	<u>\$ 36,865</u>	<u>\$ 37,641</u>

In accordance with the provisions of the trust indentures for the 1998, 2007A, 2008, and 2013 Bonds, the Authority has created a number of funds that are restricted for specific purposes. The complement of these restricted funds, collectively referred to on the statements of net position as “Restricted Assets,” at December 31, 2015 and 2014 was:

	<u>2015</u>	<u>2014</u>
Capital project funds	\$ 19,929	\$ 61,317
Debt service and reserve funds	15,671	15,421
Operating reserve account	8,554	8,550
Other funds	580	580
	<u>\$ 44,734</u>	<u>\$ 85,868</u>

Among the Authority’s debt covenants is one which requires that rates charged by the Authority will be sufficient to satisfy a formula which is intended to ensure that the Authority will be able to satisfy debt service requirements. The trust indenture also requires that revenue collections be deposited into a Revenue Fund and disbursed therefrom as provided for in the trust indenture. This Revenue Fund constitutes the vast majority of unrestricted funds cash and cash equivalents. At December 31, 2015, the Authority was in compliance with this covenant.

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8. INTEREST RATE SWAPS

Interest rate swaps disclosures (not in thousands) as of December 31, 2015 and 2014 are presented below.

Interest rate swaps at December 31, 2015 and 2014:

Current Notional Amount	Effective Date	Maturity Date	Interest Rate Paid	Interest Rate Received	Counterparty Credit Rating	Underlying Bonds
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Hedging derivatives, Cash flow hedges, Receive variable - pay fixed, Interest rate swaps:

\$ 72,747,500	6/12/2008	9/1/2039	4.038%	SIFMA	BBB+	Series 2008 B-1
41,464,000	11/3/2014	9/1/2035	2.000%	70% 1mo LIBOR	BBB+	Series 2008 C *
72,747,500	6/12/2008	9/1/2039	4.038%	SIFMA	A+	Series 2008 B-2
71,225,000	6/12/2008	9/1/2040	4.103%	SIFMA	A+	Series 2008 D-2

Investment derivatives, Receive variable - pay fixed, Interest rate swap:

62,196,000	11/3/2014	9/1/2035	3.500%	70% 1mo LIBOR	A+	Series 2008 C *
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* - This swap is the on-market component of the 2008 C hybrid investment and reflects the on-market rate as of November 3, 2014, the date of reissuance/restructuring of the underlying bonds.

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Interest Rate Swap – Market Value Information:

Notional Amount	12/31/2013 Market Value *	Change in Market Value	Swap Termination Loss	12/31/2014 Market Value *	Change in Market Value	12/31/2015 Market Value *
Hedging derivatives, Cash flow hedges, Receive variable - pay fixed, Interest rate swaps:						
\$ 72,747,500	\$ (7,097,301)	\$ (15,226,080)	\$ -	\$ (22,323,381)	\$ (2,481,762)	\$ (24,805,143)
41,464,000	(4,390,954)	(5,080,438)	(9,471,392)	-	-	-
41,464,000	-	(1,873,220)	-	(1,873,220)	(689,646)	(2,562,866)
72,747,500	(7,097,301)	(15,226,080)	-	(22,323,381)	(2,481,762)	(24,805,143)
71,225,000	(7,231,806)	(16,427,968)	-	(23,659,774)	(2,667,061)	(26,326,835)
	(25,817,362)	(53,833,786)	(9,471,392)	(70,179,756)	(8,320,231)	(78,499,987)
Investment derivatives, Receive variable - pay fixed, Interest rate swap:						
62,196,000	(6,586,431)	(10,430,488)	-	(17,016,919)	(548,432)	(17,565,351)
Total	\$ (32,403,793)	\$ (64,264,274)	\$ (9,471,392)	\$ (87,196,675)	\$ (8,868,663)	\$ (96,065,338)

* The market value is an estimated net present value of the expected cash flows calculated using relevant mid-market data inputs and based on the assumption of no unusual market conditions or forced liquidation.

Description of 2008 Swaps

During fiscal year 2008, the Authority entered into five pay-fixed, receive-variable interest rate swap contracts. The interest rate swaps were effective June 12, 2008. Beginning September 1, 2008, the Authority began to make semi-annual interest payments on the 1st of each March and September through September 1, 2035 (two swaps); September 1, 2039 (two swaps); and, September 1, 2040 (for one swap), respectively. The Counterparties make monthly interest payments on the 1st of each calendar month, which began July 1, 2008 through September 1, 2035 for two of the swaps; September 1, 2039 for two of the swaps; and September 1, 2040 for one swap.

The intention of the 2008 swaps is to effectively change the Authority's variable interest rate on the \$145,495 Water and Sewer System (Variable Rate Demand) First Lien Revenue Refunding Bonds Series B of 2008, on the \$71,225 Water and Sewer System (Variable Rate Demand) First Lien Revenue Bonds Series D-2 of 2008, and on the \$103,795 Water and Sewer System (Variable Rate Demand) Subordinate Revenue Refunding Bonds Series C of 2008 (the bonds) to synthetic fixed rates of 4.038%, 4.103%, and 3.998%, respectively.

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

During November 2014, the 2008 Series C Bonds were reissued and restructured to bear interest based upon 70% of one-month LIBOR. In conjunction with this reissuance/restructuring, the floating rate on the Series 2008 C swaps was converted from SIFMA to 70% of one-month LIBOR and the fixed rate was amended from 3.998% to 3.50%. With respect to the Series 2008 C swap treated as an effective hedge, this “off-market” swap is considered to be a hybrid instrument consisting of an on-market swap and a borrowing. The on-market swap rate is calculated as of the date of reissuance. The borrowing will be amortized over the remaining life of the swap and is included in bonds and loans payable on the statement of net position. See Note 7: Bonds and Loans Payable for detail on the borrowing.

The bonds will accrue interest at a weekly rate that is determined by a remarketing agent on each effective rate date. The interest rate on the bonds may not exceed 12%. Per the interest rate swap agreements, the Authority will receive SIFMA Municipal Swap Index while paying fixed rates as noted in the chart above.

The interest payments on the interest rate swaps are calculated based on notional amounts, all of which reduce, beginning on September 1, 2012 for the 2008 C Bonds, September 1, 2032 for the 2008 D2 Bonds and September 1, 2035 for the 2008 B Bonds, so that the notional amounts approximate the principal outstanding on the respective bonds. The interest rate swaps expire consistent with the final maturity of the respective bonds.

Accounting and Risk Disclosures

During the years ended December 31, 2015 and 2014, the Authority paid \$12,245 and \$13,418, respectively, fixed and received \$340 and \$171, respectively, variable related to their outstanding swap agreements.

As noted in the tables above, current period changes in market value for the interest rate swaps that are accounted for as hedges are recorded on the statements of net position as an adjustment to deferred outflows. Additionally, current period changes in market value for the interest rate swap accounted for as an investment is recorded on the statements of revenues, expenses and changes in net position as a component of investment income.

The fair market value of the outstanding interest rate swaps as of December 31, 2015 and 2014 are reported on the statements of net position as a swap liability.

The Authority has the ability to early terminate the interest rate swaps and to cash settle the transaction on any business day by providing at least two business days’ written notice to the

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

counterparty. Evidence that the Authority has sufficient funds available to pay any amount payable to the counterparty must be provided at the time notice is given. At early termination, the Authority will be required to pay or receive a settlement amount which is comprised of the market value of the terminated transaction(s) based on market quotations and any amounts accrued under the contract(s).

Through the use of derivative instruments such as interest rate swaps, the Authority is exposed to a variety of risks, including credit risk, interest rate risk, termination risk, basis risk, and rollover risk.

- Credit risk is the risk that a counterparty will not fulfill its obligations. The credit ratings by Moody's Investors Service, Inc., a nationally recognized statistical rating organization for the respective counterparties are listed in the table above. If a counterparty failed to perform according to the terms of the interest rate swap agreement, there is some risk of loss to the Authority, up to the fair market value of the swaps.

The Authority currently does not enter into master netting arrangements with its counterparties. As such, each derivative instrument should be evaluated on an individual basis for credit risk. As the Authority's derivative instruments currently have a negative fair market value position to the Authority at year-end, the Authority is not exposed to credit risk at December 31, 2015.

Concentration of credit risk: The Authority currently has two counterparties, with three and two outstanding interest rate swaps, respectively. The Authority's outstanding market value as of December 31, 2015 and 2014, respectively, is \$(68,697,329) and \$(63,000,074) with one counterparty and \$(27,368,009) and \$(24,196,601) with the second counterparty. Both counterparties operate in the same markets and could be similarly impacted by changes in economic or other conditions.

It is the Authority's policy to require counterparty collateral posting provisions in its non-exchange traded derivative instruments. Their terms require collateral to be posted if the respective counterparty's credit rating falls below BBB+ by Standard & Poor's and the swap insurer becomes bankrupt. The amount of collateral to be posted is calculated based on derivatives in asset positions to the Authority. As of year-end, the counterparties had not and were not required to post collateral for these transactions.

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

- Termination risk is the risk that a derivative's unscheduled end will affect the Authority's asset/liability strategy or will present the Authority with potentially significant unscheduled termination payments to the counterparty. The counterparties to the interest rate swaps do not have the ability to voluntarily terminate the interest rate swap; however, the Authority is exposed to termination risk in the event that one or more of the counterparties default. During 2014, 2008 C swaps were terminated and reissued.
- Interest rate risk is the risk that changes in interest rates will adversely affect the fair values of a government's financial instruments or cash flows. The interest rate swap that is accounted for as an investment exposes the Authority to interest rate risk. The interest rate swap is highly sensitive to changes in interest rates; changes in the variable rate will have a material effect on the swap's fair market value. The interest rate swap will terminate on September 4, 2035.
- Basis risk is the risk that arises when variable interest rates on a derivative and an associated bond or other interest-paying financial instrument are based on different indexes. The Authority is subject to basis risk as the interest index on the variable rate arm of the swaps is based on the SIFMA Municipal Swap Index and the variable interest rate on the bonds is based on a different index, a weekly rate that is determined by a remarketing agent. Although expected to correlate, the relationships between different indexes vary and that variance could adversely affect the Authority's calculated payments, and as a result cost savings or synthetic interest rates may not be realized.

The Authority is further subject to basis risk in the event that the underlying bonds become fixed rate Bank Bonds or that the maturity of the underlying bonds is accelerated as discussed in Note 7: Bonds and Loans Payable.

- Rollover risk is the risk that a derivative associated with the Authority's debt does not extend to the maturity of that debt. When the derivative terminates, the associated debt will no longer have the benefit of the derivative. The Authority is not exposed to rollover risk as the swap agreements terminate on the same day the last payment is due on the respective bonds.

Contingencies

All of the Authority's derivative instruments include provisions that require the Authority to post collateral in the event that the credit ratings of its credit support provider's senior long

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

term, unsecured debt credit rating falls below BBB+ by Standard & Poor's and FSA, the swap insurer, becomes bankrupt. The amount of collateral to be posted is calculated based on derivatives in negative market value positions to the Authority. The collateral is to be posted in the form of cash, U.S. Treasuries or other approved securities. As of year-end, the Authority had not and was not required to post collateral for these transactions.

9. INVESTMENTS AND DEPOSITS WITH FINANCIAL INSTITUTIONS

The Authority is authorized to invest in: obligations of the U.S. Government and government-sponsored agencies and instrumentalities; fully insured or collateralized certificates of deposits; commercial paper of the highest rating; repurchase agreements collateralized by government obligations or securities; highly rated bank promissory notes or investment funds or trusts; and, as to trustee assets, as otherwise permitted by the trust indenture as supplemented and amended in 1998. Throughout the years ended December 31, 2015 and 2014, the Authority invested its funds in such authorized investments. The Authority does not have a formal investment policy which addresses custodial credit risk, interest rate risk, credit risk, or concentration of credit risk.

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 concentration 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, 2015 and 2014, \$27,700 and \$31,030, respectively, of the Authority's bank balance of \$28,700 and \$32,030, respectively, was exposed to custodial credit risk. \$9,256 and \$12,580 of these amounts exposed to custodial credit risk are 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 \$28,269 and \$31,219 as of December 31, 2015 and 2014, respectively, all of which is reported as current assets in the statements of net position.

In addition to the deposits noted above, included in cash and cash equivalents as non-current restricted assets on the statements of net position are money market funds of \$33,553 and \$73,814 at December 31, 2015 and 2014, respectively.

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

At December 31, 2015, the Authority held the following investment balances:

	<u>Carrying value</u>	<u>Maturity in years Less than 1 year</u>
Commonwealth of PA		
Revenue Bonds (Guaranteed Investment Contracts)	\$ 8,550	\$ 8,550
Money market	33,553	33,553
Fixed income	-	-
Commercial paper	2,631	2,631
Total Investments	<u>\$ 44,734</u>	<u>\$ 44,734</u>

At December 31, 2014, the Authority held the following investment balances:

	<u>Carrying value</u>	<u>Maturity in years Less than 1 year</u>
Commonwealth of PA		
Revenue Bonds (Guaranteed Investment Contracts)	\$ 8,549	\$ 8,549
Money market	73,814	73,814
Fixed income	881	881
Commercial paper	2,624	2,624
Total Investments	<u>\$ 85,868</u>	<u>\$ 85,868</u>

The carrying value of the Authority's investments is the same as their fair value amount. Investments of \$11,181 and \$12,054 are included as noncurrent restricted investments on the statements of net position at December 31, 2015 and 2014, respectively. Investments of \$33,553 and \$73,814 consisting of money market funds are included as noncurrent restricted cash and cash equivalents on the statement of net position at December 31, 2015 and 2014, respectively.

Interest Rate Risk – Interest rate risk is the risk that changes in the interest rates will adversely affect the fair market value of the Authority's investments. The Authority is not

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

subject to interest rate risk, as all of its investments at December 31, 2015 and 2014 had maturities of less than one year.

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, 2015, the Authority's investments in the guaranteed investment contracts were rated AAA by Standard & Poor's. The counterparty to the Authority's guaranteed investment contracts is the Commonwealth of Pennsylvania. The Authority's investments in money markets were rated AAA by Standard & Poor's. The Authority's investments in commercial paper at December 31, 2015 were rated A-1+ by Standard & Poor'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. The Authority places no limit on the amount it may invest in any one issuer. The Authority has no investments of greater than 5% with one issuer.

As further described in Note 8, the Authority has a derivative instrument that is accounted for as an investment. Credit and interest rate risks related to this investment are described in Note 8.

10. NET POSITION

Net position represents the difference between assets, deferred outflows of resources, and liabilities. An analysis of net position amounts is as follows:

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

	December 31,	
	2015	2014
Net investment in capital assets:		
Net property, plant, and equipment	\$ 653,548	\$ 595,182
Debt subject to capital improvements	(710,641)	(722,832)
Swap liability net of deferred outflow	(17,565)	(17,017)
Swap borrowing	(8,911)	(9,335)
Deferred charge on refunding	27,728	30,501
Accounts payable for capital items	(4,856)	(4,457)
Restricted for capital activity and debt service:		
Capital projects	19,929	61,317
Debt service and reserve funds	15,671	15,421
	<u>(25,097)</u>	<u>(51,220)</u>
Restricted assets:		
Operating reserve account	8,554	8,550
Other funds	580	580
	<u>9,134</u>	<u>9,130</u>
Unrestricted	<u>(19,782)</u>	<u>(17,040)</u>
Total net position	<u>\$ (35,745)</u>	<u>\$ (59,130)</u>

11. OPERATING LEASE

Operating Lease

The Authority leases office space. The term of the lease is for twenty years commencing on August 1, 2007 and ending on July 31, 2027. The lease is subject to an automatic roll-over for five years, if the Authority does not communicate in writing one year prior to expiration that it desires not to extend the lease. The general terms of the lease requires the lessor to provide for utilities, building repairs, maintenance, and real estate taxes.

The total minimum future commitments under the lease for year ended December 31, 2015 are as follows:

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

2016	\$	616
2017		627
2018		661
2019		661
2020		661
2021-2025		3,381
2026-2027		1,199
	\$	<u>7,806</u>

The total annual rental for office space was approximately \$647 and \$645 for 2015 and 2014, respectively.

12. MANAGEMENT COMPANY

During July 2012, the Authority contracted with Veolia Water North America (Veolia), an outside management company to direct its operations. The term of the contract was for one year with an optional 6 month extension. During July 2013, the Authority extended Veolia for an additional 18 months through December 2014. In addition, there are various Key Performance Indicators (KPIs) and OPEX initiatives which Veolia will be paid for if or when the requirements are met. During 2014, payments to Veolia for KPIs and OPEX totaled approximately \$.3 million and \$2.8 million, respectively. During November 2014, the Authority contracted with Veolia for the term January 1, 2015 through December 31, 2015. The contract was not renewed or extended and was terminated as of December 31, 2015. During 2015, payments to Veolia for management, KPIs, and OPEXs totaled approximately \$1 million, \$.5 million and \$1.9 million respectively.

13. COMMITMENTS AND CONTINGENCIES

The Authority is proceeding with a capital improvement program which the Authority's independent engineer has estimated will entail expenditure of the existing construction funds and potential future bond issues. As of December 31, 2015, \$19 million from the Series 2013 bond issue is committed for the 2016 capital improvement program.

In addition to the matters discussed below and in Note 14, Consent Agreement, various other claims and lawsuits are pending against the Authority. The ultimate outcome of these claims and lawsuits cannot presently be determined and, accordingly, no provision for amounts arising from settlements has been made in these financial statements. In the opinion of

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

management, the effect on the financial statements of potential losses associated with any such claim and/or lawsuit should not be material.

The Authority was insured for general liability coverage through 2001; however, effective January 1, 2002, it became self-insured. In previous years, the Authority established a fund to pay for deductibles, small claims, and other litigation costs. At year-end, the balance in this fund was approximately \$580. This fund is grouped with "Restricted Assets" on the statements of net position. During 2015 and 2014, the Authority paid \$0 from this fund for claims, and there is \$0 accrued as of December 31, 2015 and 2014.

14. CONSENT AGREEMENT

The Authority is subject to federal regulation under the Clean Water Act (1977) and regulations adopted under that Act. Among the specific requirements applicable to the Authority's system are those imposed by the United States Environmental Protection Agency's Combined Sewer Overflow (CSO) Policy (1994). On January 29, 2004, the Authority and the City of Pittsburgh executed a Consent Order and Agreement (COA) regarding wet weather sewer overflows within the City. The other signatories to the COA are the Pennsylvania Department of Environmental Protection (DEP) and the Allegheny County Health Department (ACHD).

Generally, the COA requires the Authority and the City to assess the City sewers to develop a plan with ALCOSAN to address wet weather sewer overflows within the City. The COA is part of a sewer assessment program for all municipalities served by ALCOSAN. To date, assessment activities have been completed for all accessible critical sewers and separate sanitary sewers with the exception of any additional sewers discovered through continued research and investigation. Ongoing pipe and manhole repairs are being completed to provide CCTV access to remaining inaccessible critical/sanitary sewer pipes. Assessment activities for non-critical sewers are to be completed on a longer schedule. The majority of accessible non-critical manholes have been inspected with ongoing efforts to complete any remaining or newly identified. The required Wet Weather Feasibility Study (WWFS) was submitted to the DEP and ACHD on time in July of 2013. This long term control plan outlined system-wide improvements, including Green Infrastructure (GI) that the Authority would implement over the next 20 years.

As this COA with the DEP expired in March 2015, the U.S. Environmental Protection Agency (USEPA) became the main regulatory body to which the Authority is responsible. On January 21, 2016 the USEPA issued a Clean Water Act Section 308 Information Request to the Authority. The nature of the request is to provide a jurisdictional basis for USEPA to

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO FINANCIAL STATEMENTS

(Dollars expressed in thousands unless otherwise indicated)

YEARS ENDED DECEMBER 31, 2015 AND 2014

engage the Authority/City in an enforcement action by consent, or a Consent Decree (CD). The Authority intends that through such an action, it can more fully participate in the implementation of interim regional wet weather activities, controls, and improvements. The Authority further understand that such an action will also permit the Authority/City to participate more fully in the identification and implementation of any final wet weather control measures for the region. The USEPA 308 request requires the Authority to submit detailed information on past CSO performance and activities. It also requires the Authority to conduct a source reduction analysis for the entire service area, followed by GI demonstration projects to be completed by December 2017. The results of the analysis and demonstration projects will be used to determine the details in the final consent decree.

In addition to the assessment, the USEPA 308 request requires the Authority and the City to continue implementing the Nine Minimum Controls to reduce combined sewer overflows, and to perform repairs and maintenance of deficiencies revealed by the assessment. The Authority maintains an expedited response to significant structural failures of the sewer system where imminent structural failures are determined by a professional engineer and prioritized for repair. Ongoing sewer line replacement, point repair, lining, point lining, and gunite projects have been implemented to address structural deficiencies.

Given the broad scope of a potential CD, the size of the City sewer system, and the various conditions and/or deficiencies that may be discovered by the assessment, it is difficult to predict the total cost of compliance with the CD. Moreover, it is difficult to predict what, if any, largescale and/or regional capital improvements may be required after the completion of the assessment to address wet weather sewer overflows in the City and in the ALCOSAN service area. The Authority hired two engineering firms to assess and model the sewer system, and will have fulfilled the first portion of the USEPA 308 request by March 31, 2016. The second phase of the request requires a source reduction study be completed by December 1, 2016 and demonstration projects constructed by December 1, 2017.

The Authority, along with the other impacted local municipalities, is awaiting a response from the USEPA and the DEP on its proposed regional plan. Costs associated with COA compliance will be reflected in the capital improvement program and funded by proceeds of potential future bond issuances.

Supplementary Information

PITTSBURGH WATER AND SEWER AUTHORITY

COMBINING STATEMENT OF NET POSITION

(Dollars expressed in thousands)

DECEMBER 31, 2015

	Water	Sewer	Sewer Treatment	Total
Assets				
Current assets	\$ 41,450	\$ 20,416	\$ -	\$ 61,866
Noncurrent assets	467,849	230,433	-	698,282
Total Assets	509,299	250,849	-	760,148
Deferred Outflows of Resources				
Deferred charge on refunding	18,578	9,150	-	27,728
Accumulated decrease in fair value of hedging derivatives	52,595	25,905	-	78,500
Total Deferred Outflows of Resources	71,173	35,055	-	106,228
Liabilities				
Current liabilities	42,821	21,091	-	63,912
Noncurrent liabilities	561,600	276,609	-	838,209
Total Liabilities	604,421	297,700	-	902,121
Net Position				
Net investment in capital assets	(16,815)	(8,282)	-	(25,097)
Restricted for capital activity and debt service	6,120	3,014	-	9,134
Unrestricted	(8,392)	(11,390)	-	(19,782)
Total Net Position	\$ (19,087)	\$ (16,658)	\$ -	\$ (35,745)

PITTSBURGH WATER AND SEWER AUTHORITY

COMBINING STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

(Dollars expressed in thousands)

YEAR ENDED DECEMBER 31, 2015

	Water	Sewer	Sewer Treatment	Total
Operating Revenues	\$ 75,344	\$ 38,857	\$ 59,963	\$ 174,164
Operating Expenses				
Direct operating expenses	32,166	15,843	-	48,009
Wastewater treatment	-	-	59,963	59,963
Cooperation agreement operating expenses:				
Indirect cost allocation - sewer conveyance	-	3,000	-	3,000
Indirect cost allocation - water	4,150	-	-	4,150
Expense of water provided by other entities:				
Subsidy of customers located in the City	1,786	-	-	1,786
Depreciation	9,907	4,879	-	14,786
Total operating expenses	48,009	23,722	59,963	131,694
Operating Income	27,335	15,135	-	42,470
Non-operating Revenues (Expenses)				
Donated property	12,146	5,983	-	18,129
Interest revenue	133	66	-	199
Investment income - change in fair market value of swap	(367)	(181)	-	(548)
Interest and amortization - bonds	(24,354)	(11,995)	-	(36,349)
Interest expense - other	(346)	(170)	-	(516)
Total non-operating revenues (expenses)	(12,788)	(6,297)	-	(19,085)
Net Income (Loss)	14,547	8,838	-	23,385
Net Position:				
Beginning of year	(33,634)	(25,496)	-	(59,130)
End of year	\$ (19,087)	\$ (16,658)	\$ -	\$ (35,745)

PITTSBURGH WATER AND SEWER AUTHORITY

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

YEAR ENDED DECEMBER 31, 2015

Federal Grantor/Pass-Through Grantor/Program Title	Federal CFDA Number	Expenditures	Amounts Provided to Subrecipients
United States Department of Environmental Protection:			
Passed through the Pennsylvania Department of Environmental Protection:			
Drinking Water State Revolving Fund Cluster:			
Capitalization Grants for Drinking Water State Revolving Funds	66.468	\$ 1,074,331	\$ -
Clean Water State Revolving Fund Cluster:			
Capitalization Grants for Clean Water State Revolving Funds	66.458	225,091	-
Total Expenditures of Federal Awards		\$ 1,299,422	\$ -

See accompanying notes to schedule of expenditures of federal awards.

PITTSBURGH WATER AND SEWER AUTHORITY

NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

YEAR ENDED DECEMBER 31, 2015

1. BASIS OF PRESENTATION

The accompanying schedule of expenditures of federal awards (schedule) of the Pittsburgh Water and Sewer Authority is presented on the accrual basis of accounting. The information in this schedule is presented in accordance with the requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the schedule presents only a selected portion of the operations of the Pittsburgh Water and Sewer Authority, it is not intended to and does not present the net position, changes in net position, or cash flows of the Pittsburgh Water and Sewer Authority.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Expenditures reported on the schedule are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. The Pittsburgh Water and Sewer Authority has elected to not use the 10-percent de minimis indirect cost rate allowed under the Uniform Guidance.

3. DETERMINATION OF FEDERAL EXPENDITURES

The amount of federal expenditures for the United States Department of Environmental Protection loans represents the expenditures incurred under the loans during the year ended December 31, 2015. The United States Department of Environmental Protection requires that the current year expenditures incurred under the loans be reported on the schedule rather than the beginning balance of the loans.

**Pittsburgh Water and
Sewer Authority**

Independent Auditor's Reports
Required by the Uniform Guidance

Year Ended December 31, 2015

Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance
and Other Matters Based on an Audit of Financial Statements Performed in Accordance with
Government Auditing Standards

Board of Directors
Pittsburgh Water and Sewer Authority

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Pittsburgh Water and Sewer Authority (Authority) as of and for the year ended December 31, 2015, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated April 15, 2016.

Internal Control over Financial Reporting

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

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

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did identify certain deficiencies in internal control, described in the accompanying schedule of findings and questioned costs as Findings 2015-001 and 2015-002 that we consider to be material weaknesses.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The

Board of Directors
Pittsburgh Water and Sewer Authority
Independent Auditor's Report on Internal Control over
Financial Reporting and on Compliance and Others Matters

results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Authority's Response to Findings

The Authority's response to the findings identified in our audit is described in the accompanying schedule of findings and questioned costs. The Authority's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Purpose of this Report

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

Maker Duessel

Pittsburgh, Pennsylvania
April 15, 2016

Independent Auditor's Report on Compliance for the Major Program and on
Internal Control over Compliance Required by the Uniform Guidance

Board of Directors
Pittsburgh Water and Sewer Authority

Report on Compliance for the Major Federal Program

We have audited the Pittsburgh Water and Sewer Authority's (Authority) compliance with the types of compliance requirements described in the U.S. Office of Management and Budget (OMB) *Compliance Supplement* that could have a direct and material effect on the Authority's major federal program for the year ended December 31, 2015. The Authority's major federal program is identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

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

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for the Authority's major federal program based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on the major federal program occurred. An audit includes examining, on a test basis, evidence about the Authority's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

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

Opinion on the Major Federal Program

In our opinion, the Authority complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on its major federal program for the year ended December 31, 2015.

Report on Internal Control over Compliance

Management of the Authority is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Authority's internal control over compliance with the types of requirements that could have a direct and material effect on the major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for the major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control over compliance.

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

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

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Maher Duessel

Pittsburgh, Pennsylvania
April 15, 2016

PITTSBURGH WATER AND SEWER AUTHORITY

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

YEAR ENDED DECEMBER 31, 2015

I. Summary of Audit Results

1. Type of auditor's report issued: Unmodified

2. Internal control over financial reporting:

Material weakness(es) identified? yes no

Significant deficiencies identified that are not considered to be material weakness(es)?

yes none reported

3. Noncompliance material to financial statements noted? yes no

4. Internal control over major programs:

Material weakness(es) identified? yes no

Significant deficiencies identified that are not considered to be material weakness(es)?

yes none reported

5. Type of auditor's report issued on compliance for major programs: Unmodified

6. Any audit findings disclosed that are required to be reported in accordance with 2 CFR section 200.516(a)? yes no

7. Major Programs:

CFDA Number(s)

66.468

Name of Federal Program or Cluster

Drinking Water State Revolving Fund Cluster

8. Dollar threshold used to distinguish between type A and type B programs: \$750,000

9. Auditee qualified as low-risk auditee? yes no

II. Findings related to the financial statements which are required to be reported in accordance with GAGAS.

Finding 2015-001 – Billing

Condition: The Authority experienced significant difficulties in billing on a timely and accurate basis during the year. Management identified these issues and employed an account by account basis approach for review in determining the estimate of unbilled accounts receivable at year-end. Management's review disclosed that there was a range of wastewater treatment only accounts that were not properly billed during 2015 due to the manual data entry required as there were upload errors with the consumption data from Pennsylvania American Water Company (PAWC).

PITTSBURGH WATER AND SEWER AUTHORITY

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

YEAR ENDED DECEMBER 31, 2015

Management performed an analysis of all unbilled amounts for all of the Authority's customers at year-end. This analysis was based on the previous billing for each customer, which was then prorated to December 31, 2015 based on the number of days since the last billing. Our review of management's analysis disclosed instances in which some customer's estimate of unbilled accounts receivable was too high, as the last bill amount used in the calculation was for several months of service and was applied on a monthly basis for the unbilled service period. Management identified unbilled accounts receivable which were estimated too low due to inaccurate meter readings which offset the unbilled accounts that have been estimated too high. We reviewed the analysis for such and noted several customers for whom the last bill amount used in the calculation was less than the minimum bill amount of \$15.13. Based on our review, we have determined the estimated unbilled accounts receivable is materially accurate.

Criteria: Consumption should be billed to customers on a timely basis.

Cause: The Authority does not have automated controls in place to ensure that all customer accounts are billed on a timely and accurate basis.

Effect: The Authority's unbilled sewer revenue increased by approximately \$4.1 million at December 31, 2015 from the prior year.

Recommendation: We recommend that management continue to implement automated procedures between the time of the meter reading and the actual billing to ensure timely and accurate billings.

Views of Responsible Official and Planned Corrective Action: Management agrees with the finding. A team of experienced expert consultants have been retained to address the status of the billing system and processes. These experts will correct problems in the billing database and with the billing systems and will then restructure billing processes to ensure that all customer accounts are billed monthly on a timely and accurate basis.

Finding 2015-002 – Accounts Receivable

Condition: During our review of the accounts receivable aging report, we noted several accounts with unapplied payments. It is our understanding that the majority of these unapplied payments occur from customer pre-payment or overpayment. However, we did note several instances in which accounts past due are offset by an unapplied payment.

The Authority is not remitting past-due receivables to the third party collector in a timely manner. In addition, the Authority is not reconciling its internal records of accounts submitted to the third party collector with the records of the third party collector.

Criteria: All customer payments must be applied to the appropriate account to ensure accurate accounts receivable data and customer balances.

PITTSBURGH WATER AND SEWER AUTHORITY

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

YEAR ENDED DECEMBER 31, 2015

It is the Authority's policy to remit accounts past due ninety days to the third party collector. For accounts submitted to the third party collector, the Authority should reconcile the records of the third party collector to its internal records.

Cause: The Authority does not have controls in place to ensure that all payments are properly applied to customer accounts.

The Authority does not have controls in place to ensure that accounts past due ninety days are reviewed and remitted timely to the third party collector in accordance with the Authority's policy. The Authority does not have controls in place to reconcile the records of the third party collector with its internal records.

Effect: The amount of unapplied payments at December 31, 2015 is approximately \$6.4 million.

Accounts over ninety days outstanding are not being remitted timely to the third party collector, resulting in these balances not being pursued in a timely manner by the third party collector. The Authority is not reconciling the records of the third party collector with its internal records.

Recommendation: To ensure the accuracy of accounts receivable data utilized by the Authority, we recommend that management review all accounts with unapplied payments for propriety and that unapplied payments be applied to past due accounts as warranted and ensure application of payments to past due accounts is independently approved.

We recommend that management implement procedures to ensure accounts past due ninety days are timely remitted to the third party collector in accordance with the Authority's policy. Further, we recommend that management implement procedures to track the accounts that have been remitted to the third party collector, the payments received on such account from the third party collector, and the remaining balance to be collected.

Views of Responsible Official and Planned Corrective Action: Management agrees with the finding. Unapplied payment records have arisen as a result of issues within the billing database and consultants have been retained to address these issues. When the billing systems and databases have been corrected, these payment records will be properly reflected in customer accounts and placements with the third party collector will be more regular.

III. Findings and questioned costs for federal awards.

No matters were reported.

PITTSBURGH WATER AND SEWER AUTHORITY

SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS

YEAR ENDED DECEMBER 31, 2015

No Findings in Prior Year