

# **Allegheny County Sanitary Authority**

Financial Statements and  
Required Supplementary and  
Supplementary Information

Years Ended December 31, 2019 and 2018  
with Independent Auditor's Report

**MaherDuessel**

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# ALLEGHENY COUNTY SANITARY AUTHORITY

YEARS ENDED DECEMBER 31, 2019 AND 2018

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## Independent Auditor's Report

**Board of Directors  
Allegheny County  
Sanitary Authority**

We have audited the accompanying financial statements of the business-type activities and aggregate remaining fund information of Allegheny County Sanitary Authority (Authority), as of and for the years ended December 31, 2019 and 2018, and the related notes to the financial statements, as listed in the table of contents.

### **Management's Responsibility for the Financial Statements**

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

### **Auditor's Responsibility**

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

## Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and aggregate remaining fund information of the Authority as of December 31, 2019 and 2018, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## Emphasis of Matter

As described in Note 2 to the financial statements, the Authority adopted Governmental Accounting Standards Board (GASB) Statement No. 84, "*Fiduciary Activities*" which improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how these activities should be reported. Also described in Note 2, the Authority adopted GASB Statement No. 89, "*Accounting for Interest Cost Incurred before the End of Construction Period*" which enhances the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and simplifies accounting for interest cost incurred before the end of a construction period. The provisions of these statements have been adopted and incorporated into these financial statements.

## Other Matters

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the pension plans' schedules, and other post-employment benefits schedules on pages i through xiii, pages 43 through 46, and page 47, respectively, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audits were conducted for the purpose of forming opinions on the financial statements as a whole. The schedules of investments and other assets are presented for purposes of additional analysis and are not a required part of the financial statements.

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

*Maier Duessel*

Pittsburgh, Pennsylvania  
March 24, 2020

## **MANAGEMENT'S DISCUSSION AND ANALYSIS**

### **AUDIT ASSURANCE**

The unmodified (i.e., clean) opinion of our independent auditors, Maher Duessel, Certified Public Accountants, is included in this report. You will note that the Allegheny County Sanitary Authority (Authority) has included for 2019 this Management's Discussion and Analysis section, which is in compliance with Statement No. 34 of the Governmental Accounting Standards Board.

### **FINANCIAL HIGHLIGHTS**

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

#### **Economy**

The County is the location of seven Fortune 500 corporate headquarters. The County's 2019 Fortune 500 companies include: U.S. Steel (222), PNC Financial Services Group (159), PPG Industries (205), Kraft Heinz (115), Alcoa (236), Wesco International, Inc. (370), and Dick's Sporting Goods (359). The County has experienced substantial growth in areas such as technology, tourism, and health care. The County is also a strong supporter of its manufacturing industries and has traditionally been one of the major industrial centers of the world with its access to major fields of coal and shipping access to 8,000 miles of navigable rivers. The Port of Pittsburgh is the second largest inland port in the nation. There is annual benefit to the region of over \$800 million for the shipping and receiving of 32 million tons of cargo.

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

The region's health services sector employs over 132,000 people and is a robust network that is cultivating lifesaving technologies, regenerative medicine, and pharmaceuticals. The University of Pittsburgh Medical Center is a multi-billion-dollar global healthcare enterprise and is the region's top employer, with more than 46,500 employees. Bayer HealthCare, Highmark Inc., Allegheny Health Network, and Mylan, Inc. are also part of this sector.

Top manufacturers such as ATI, Alcoa, Boeing Company, Covestro, General Electric, Kraft Heinz, U.S. Steel, GE, Wabtec, and Westinghouse are either headquartered or have a presence in the greater County region. Smaller precision tooling and machining companies meet global demands for custom components.

The County and surrounding region has become a national leader in energy technology, innovation, and supply chain related to production, distribution, and efficient usage. The area is home to more than 1,050 companies in the global energy market, including Chevron, Eaton, Mitsubishi Electric Power Products, Inc., PPG Industries, Inc., Shell Chemicals, and Westinghouse Electric Company.

Nearly 1,500 technology firms, including Google, Ford's, ARGO AI, Ansys, Apple, IBM, Uber, and Ariba, have a presence within the County and employ some 28,000 people. A tech-savvy talent pipeline flowing from many area colleges and universities, and a robust network of organizations supporting financial innovation, are helping the region's knowledge-based economy to thrive.

Global financial institutions with headquarters or major business units within the County include PNC Financial Services Group, The Bank of New York Mellon, Citizens Bank, Dollar Bank, Federated Investors, First Commonwealth Bank, Huntington National Bank, S&T Bank, TriState Capital, and KeyBank.

Two global law firms, K&L Gates and Reed Smith, are based in the City of Pittsburgh, as is Buchanan, Ingersoll & Rooney, and Jones Day – Pittsburgh as well as major insurance companies, including Highmark, UnitedHealthcare, and Cigna.

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

Uber has a tech center in Pittsburgh and a testing facility on 42 acres within the City of Pittsburgh. Also located in Pittsburgh is the recently formed American Robotics Manufacturing Institute. Amazon has expanded its footprint in the Pittsburgh region. Shell continues construction of a \$6 billion Shell Appalachia ethane cracker complex in Beaver County, where 1,000 workers are on the job and an estimated 5,000 expected. A new natural gas-fired power plant is under construction in Westmoreland County. Last year UPMC, the region's largest healthcare provider, announced its plan to spend \$2 billion to build three new specialty hospitals, with the first set to open in 2020.

The Port Authority of Allegheny County (Port Authority) serves the metropolitan area by operating over 700 buses, over 80 light rail vehicles, and the Monongahela incline. The Port Authority also owns the Duquesne Incline, which it leases to the nonprofit Society for the Preservation of the Duquesne Heights Incline. The Port Authority is the largest operator of mass transit services in Western Pennsylvania and is among the nation's top 30 largest public transportation systems. The Port Authority's 2,600 employees serve approximately 200,000 riders, with a total of nearly 64 million passengers annually.

Pittsburgh International Airport (PIA), which offers more than 190 peak season weekday departures on 17 airlines, is recognized for its state-of-the-art terminals and an Airmall for the approximately 8 million travelers that pass through PIA each year.

In 2019, non-manufacturing industries accounted for over 90% of the Pittsburgh MSA employment base. The loss of once-dominant, heavy water-use manufacturing such as steel and food processing has had a negative impact on the Authority's residential users. Decline in regional manufacturing over the past two decades has shifted a significant portion of the Authority's cost burden to residential users who

have declined as well over the past decade. This decline in consumption base, combined with outside regulatory emphasis on reducing overflows, will have a dramatic impact on rates for years to come.

- Billed flow for 2019 of 19,614,615 tgal (thousands of gallons), decreased by 378,412 tgal. While consumption was relatively stable for the year, service area continues to lose high water use manufacturers. In 2019, Riverbend Soup closed its Pittsburgh Facility which generated in excess of \$500,000 of billing per year.
- In 2019, the Authority treated 76,348,300 tgal, of which 19,614,615 tgal was billed. Stated differently, the Authority billed for 25.69% of the water it treated. During 2018, the Authority treated 78,877,900 tgal, for which it billed 19,993,027 tgal, or 25.35% of what was treated was actually billed to customers. The difference between what is treated vs. that which is billed is attributed to direct inflow of storm water from combined sewer communities served and groundwater infiltration into the system from old and deteriorating sewer lines throughout the service area.
- The Authority maintained compliance with all debt covenants required by the governing Trust Indentures.
- Debt Service Coverage, when allowing for available revenue funds on hand at the beginning of the year was 3.86, which greatly exceeded the 1.10 trust requirements. In addition, stand-alone coverage without consideration to beginning balances was 1.80, which exceeded the required 1.00 trust requirement.
- On November 16, 2017, the Board of Directors (Board) adopted multi-year rate structure increasing customer service charges 7.5 percent in 2018, 7 percent in 2019, 7 percent in 2020, and 7 percent in 2021.

### **REQUIRED FINANCIAL STATEMENTS**

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

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

All of the current year's revenue and expenses are accounted for in the statement of revenues, expenses, and changes in net position. This statement measures the success of the Authority's operations over the past year and can be used to determine whether the Authority has successfully recovered all its costs through its sewage disposal rates and other fees. As required under the Authority's Trust Indenture, the Consulting Engineer, Hatch, has reviewed the rate structure and agrees that a 7 percent rate increase in 2020 is necessary to meet requirements of the Trust Indenture and financial obligations imposed under the federal consent decree rate model structure.

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

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

### **SUMMARY OF ORGANIZATION AND BUSINESS**

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

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

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

## FINANCIAL ANALYSIS

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

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

	<b>2019</b>	<b>2018</b>	<b>\$ Change</b>	<b>% Change</b>
Current assets	\$242.48	\$206.99	\$35.49	17.15%
Restricted/designated assets	235.49	251.85	-16.36	-6.50%
Prepaid bond costs	6.59	7.19	-0.60	-8.34%
Plant and equipment, net	629.10	622.34	6.76	1.09%
Net pension asset	0.00	2.71	-2.71	0.00%
<b>Total Assets</b>	<b>1,113.66</b>	<b>1,091.08</b>	<b>22.58</b>	<b>2.07%</b>
<b>Deferred Outflows of Resources</b>	<b>42.81</b>	<b>25.64</b>	<b>17.17</b>	<b>66.97%</b>
Current liabilities	46.74	45.02	1.72	3.82%
Long-term liabilities	741.84	753.21	-11.37	-1.51%
<b>Total Liabilities</b>	<b>788.58</b>	<b>798.23</b>	<b>-9.65</b>	<b>-1.21%</b>
<b>Deferred Inflow of Resources</b>	<b>11.25</b>	<b>12.39</b>	<b>-1.14</b>	<b>-9.20%</b>
<b>Net Position</b>	<b>\$356.64</b>	<b>\$306.10</b>	<b>\$50.54</b>	<b>16.51%</b>

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

	<b>2018</b>	<b>2017</b>	<b>\$ Change</b>	<b>% Change</b>
Current assets	\$206.99	\$183.10	\$23.89	13.05%
Restricted/designated assets	251.85	100.30	151.55	151.10%
Prepaid bond costs	7.19	6.47	0.72	11.13%
Plant and equipment, net	622.34	608.60	13.74	2.26%
Net pension asset	2.71	0.00	2.71	0.00%
<b>Total Assets</b>	<b>1,091.08</b>	<b>898.47</b>	<b>192.61</b>	<b>21.44%</b>
<b>Deferred Outflows of Resources</b>	<b>25.64</b>	<b>29.32</b>	<b>-3.68</b>	<b>-12.55%</b>
Current liabilities	45.02	43.40	1.62	3.73%
Long-term liabilities	753.21	618.90	134.31	21.70%
<b>Total Liabilities</b>	<b>798.23</b>	<b>662.30</b>	<b>135.93</b>	<b>20.52%</b>
<b>Deferred Inflow of Resources</b>	<b>12.39</b>	<b>2.94</b>	<b>9.45</b>	<b>321.43%</b>
<b>Net Position</b>	<b>\$306.10</b>	<b>\$262.55</b>	<b>\$43.55</b>	<b>16.59%</b>

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

	2019	2018	\$ Change	% Change
Operating revenues	\$180.24	\$169.72	\$10.52	6.20%
Non-operating revenue	8.97	3.13	5.84	186.58%
<b>Total revenues</b>	<b>189.21</b>	<b>172.85</b>	<b>16.36</b>	<b>9.46%</b>
Operating expenses	82.08	78.63	3.45	4.39%
Non-operating expenses	33.82	22.22	11.60	52.21%
Depreciation	22.77	23.07	-0.30	-1.30%
<b>Total expenses</b>	<b>138.67</b>	<b>123.92</b>	<b>14.75</b>	<b>11.90%</b>
Net income (loss)	50.54	48.93	1.61	3.29%
<b>Net Position, Beginning of Year</b>	<b>306.10</b>	<b>257.17</b>	<b>48.93</b>	<b>19.03%</b>
<b>Net Position, End of Year</b>	<b>\$356.64</b>	<b>\$306.10</b>	<b>\$50.54</b>	<b>16.51%</b>

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

	2018	2017	\$ Change	% Change
Operating revenues	\$169.72	\$170.18	-\$0.46	-0.27%
Non-operating revenue	3.13	1.10	2.03	184.55%
<b>Total revenues</b>	<b>172.85</b>	<b>171.28</b>	<b>1.57</b>	<b>0.92%</b>
Operating expenses	78.63	74.40	4.23	5.69%
Non-operating expenses	22.22	30.81	-8.59	-27.88%
Depreciation	23.07	22.43	0.64	2.85%
<b>Total expenses</b>	<b>123.92</b>	<b>127.64</b>	<b>-3.72</b>	<b>-2.91%</b>
Net income (loss)	48.93	43.64	5.29	-12.12%
<b>Net Position, Beginning of Year</b>	<b>257.17</b>	<b>213.53</b>	<b>43.64</b>	<b>20.44%</b>
<b>Net Position, End of Year</b>	<b>\$306.10</b>	<b>\$257.17</b>	<b>\$48.93</b>	<b>19.03%</b>

## **OTHER SELECTED INFORMATION**

<b>Selected Data:</b>	<b>2019</b>	<b>2018</b>	<b>Difference</b>	<b>%Change</b>
Authorized employees	518	504	14	2.78%
Actual employees at year-end	427	413	14	3.39%
Wastewater treated (billions of gallons)	76,348	78,877	-2,529	-3.21%
Wastewater billed (billions of gallons)	19,615	19,993	-378	-1.89%
Percentage of billed/treated wastewater	25.69%	25.35%	0.34%	1.36%
Rates:				
Charge per 1,000 gallons of water consumption	\$7.94	\$7.42	\$0.52	7.01%
Account service charge per bill rendered	\$16.69	\$15.60	\$1.09	6.99%
Average customer bill:				
Per year	\$447.88	\$418.56 *	29.32	7.00%
Per quarter	111.97	104.64 *	7.33	7.00%
Per month	37.32	34.88 *	2.44	7.00%

\* Based on 12,000 Gallons per quarter

## **GENERAL TRENDS AND SIGNIFICANT EVENTS**

On September 19, 2019, the Authority filed an Amended Consent Decree with the United States Department of Justice, the United States Environmental Protection Agency, the Pennsylvania Department of Environmental Protection, and the Allegheny County Health Department with the United States District Court. The Amended Consent Decree was the result of almost 6 years of negotiation with the agencies.

The Authority first entered into a consent decree in 2008 and completed the required plan in 2012. Although comprehensive, the public challenged the authority to make the plan more affordable for ratepayers yet flexible enough to take advantage of advances in the field of green stormwater and wastewater management. The Original Consent Decree required the reduction of Combined Sewer Overflows and the elimination of Sanitary Sewer Overflows by September 30, 2026. Under the amended plan, that deadline was extended to December 31, 2036.

The Amended Consent Decree was published in the Federal Register for a 60 day comment period. The comment period is now complete, and currently, the Agencies, with the assistance of the Authority, are reviewing and addressing those comments. The amended decree will not become final until it is approved by the United States District Court for the Western District of Pennsylvania.

Appendix Z to the Amended Consent Decree summarizes the major components of the new Clean Water Plan.

### **Summary of Appendix Z**

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

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

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

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

- **Regional Flow Optimization Strategy and Preliminary Planning.**

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

- **Woods Run Wastewater Treatment Plant Expansion.**

The Authority will expand wet weather treatment capacity of the plant from 250 mgd to 480 mgd and wet weather headworks and disinfection capacity to 600 mgd. It is anticipated that these facilities will be complete and in operation between January 1, 2024 through December 30, 2025.

- **Existing Infrastructure Inspection/Rehabilitation.**

The Authority will continue its operation and maintenance practices for existing infrastructure, including establishing re-inspection and priority rehabilitation schedules.

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

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

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

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

### **Regionalization**

The Authority has committed to make a good faith effort to take responsibility of at least 200 miles of existing Intermunicipal Trunk Sewers and Associated Facilities by January 31, 2020, including responsibility for controlling associated overflows transferred to the Authority.

### **Green Infrastructure**

The Authority has committed \$200 million towards this strategy, including support for municipal flow reduction partnerships. The Authority's Green Revitalization of Our Waterways Program (GROW) has awarded over \$30 million so far in grants to our member municipalities dedicated to green infrastructure.

### **Clean Water Assistance Program**

Recognizing that increasing rates will have a negative impact on our service areas most vulnerable ratepayers, the Authority implemented a customer assistance program in 2017. Qualified homeowners who meet family income limits set by the federal government will receive approximately the first 4,000 gallons of quarterly consumption free. In 2019, this resulted in approximately 3,300 Authority customers receiving an annual credit of \$128.

For 2020, the quarterly assistance payment was increased to \$34 per quarter, or an annual credit of \$136. The program is being administered by the nationally recognized Dollar Energy Fund. The Authority expects participation in the program to grow as rates continue to increase in order to fund compliance with the consent decree.

## **FINANCIAL CONDITION**

The Authority continued to achieve outstanding financial results in 2019, improving upon already solid debt service coverage ratios and days cash on hand. Debt service coverage increased to 180.66 percent in 2019, surpassing last year's coverage of 174.77 percent. When considering beginning cash balances available after reserving 25 percent, the Authority achieved a record 386.36 percent debt service coverage in 2019. In their May 2019 issue of OUTLOOK, Moody's Investor Services highlighted the Authority's strong liquidity position by noting its achievement of 684 days cash on hand in 2018. Liquidity improved even further in 2019, with days cash on hand increasing to 780 days.

## **RESULTS OF OPERATIONS**

### Operating Revenue:

Operating revenues of \$180,238,305 increased by 6.2 percent over 2018, reflecting a 7 percent increase in customer rates implemented at the beginning of the year. Overall billed consumption was relatively stable, with a small decrease in billed consumption of 378,000 tgal for the year compared to 2018.

All of the Authority's operating revenue was derived from customer billing for sewage treatment service, the Authority receives no subsidies. The Authority, the City of Pittsburgh, and 82 other municipalities in and around Allegheny County have entered into agreements (Standard Municipal Agreements) under which the Authority is designated (within its service area) the exclusive agent of the respective municipality to furnish sewage treatment and disposal service. Each municipality contracting with the Authority is given two options with respect to billing, "Direct" or "Lump-sum." With the Direct method of billing, accounts not paid within 60 days become the responsibility of the community; thus, the Authority insures no bad debt. Under the Direct method, Authority bills and collects for its services directly from the individual customer. Under the Lump-sum method, consumption for the entire community is compiled and billed to the municipality, which in turn bills its own residents. All but three municipalities utilize this method of billing in order to attach fees for local sewer infrastructure maintenance. Under both scenarios, the Authority is guaranteed full payment for services.

### Operating Expenses:

Operating expenses in 2019 of \$82.08 million were \$3.45 million higher than 2018 operating expenses of \$78.63 million. Outside Interceptor cleaning contracts added almost \$2 million to the cost of maintaining the collection system. Also contributing to administrative cost increases were support provided to the 3 Rivers Wet Weather Program and increases associated with the implementation of the federal Consent Decree.

### Depreciation and Non-operating Expenses:

Depreciation expense decreased slightly by \$299,050 as a result of a number of original plant construction assets from the late 1950 and early 1960 fully depreciating during 2019.

Non-operating expenses also reflect changes to pension funding calculated under GASB Statement No. 68 and the 2018 implementation of GASB Statement No. 75 related to Other Post-Employment Benefits. Calculations with regard to both GASB Statement Nos. 68 and 75 are prepared by the Authority's Actuary. In addition, GASB Statement No. 89 implemented in 2019 resulted in the elimination of the capitalization of interest expense on capital projects. The result was an increase in recognized interest revenues and bond interest expense that would have been shown net and capitalized as part of capital assets under construction.

### Non-operating Revenues:

As noted above, interest earnings on the Authority's revenue and non-restricted capital facilities funds increased by over \$5.8 million as interest rates improved on money market and treasury holdings. This increase also reflects the implementation of GASB Statement No. 89, as noted above.

### Litigation Contingency:

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

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

### Debt:

At year-end, the Authority had \$728.69 million in long- and short-term debt.

During 2018, the Authority issued \$157,230,000 in Sewer Revenue Bonds to fund the Capital Improvement Program.

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

### **FINAL COMMENTS**

In announcing the filing of the Amended Consent Decree on September 19, 2019, Executive Director Arletta Scott Williams publically noted her pleasure at the positive results achieved over the course of negotiations with the Agencies. "We heard the public's input on the first plan, especially when it came to the price tag associated with making these required changes to our system. Being able to reduce the cost to ratepayers, extending the timetable to 2036, and having the ability to adapt the plan to include new advances in stormwater management are all key to reaching our goal of reducing overflows."

Recognizing that increasing rates to fund the Consent Decree will have a negative financial impact on many households in our service area, the Authority implemented a customer assistance program in 2017 providing, in effect, the first 4000 gallons of consumption per quarter free. In 2018, the Authority increased the quarterly assistance payment from \$30 to \$32 and announced that for 2020, the quarterly assistance payment will increase to \$34.

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

#### **CONTACTING THE AUTHORITY'S FINANCIAL MANAGER**

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

# ALLEGHENY COUNTY SANITARY AUTHORITY

## STATEMENTS OF NET POSITION

DECEMBER 31, 2019 AND 2018

Assets and Deferred Outflows of Resources	2019	2018	Liabilities, Deferred Inflows of Resources, and Net Position	2019	2018
<b>Assets:</b>			<b>Liabilities:</b>		
Current assets:			Current liabilities:		
Cash and cash equivalents	\$ 175,476,686	\$ 142,482,220	Accounts payable	\$ 7,349,003	\$ 7,180,579
Accounts receivable:			Accrued liabilities:		
Billed sewer revenue	16,702,983	16,544,587	Compensated absences	4,994,678	4,539,483
Unbilled sewer revenue	43,666,409	41,408,016	Salaries and wages	1,751,181	1,529,529
Other	30,225	4,469	Accrued interest on bonds	2,638,762	2,745,875
Other current assets	6,604,244	6,556,274	Reserve for litigation	2,371,900	2,371,900
Total current assets	242,480,547	206,995,566	Pretreatment advance payments	1,850	24,375
Restricted/designated assets:			Current maturities of sewer revenue bonds	27,635,000	26,630,000
Cash and cash equivalents	150,150,904	83,445,720	Total current liabilities	46,742,374	45,021,741
Investments	84,963,478	167,782,528	Long-term liabilities:		
Accrued interest receivable	375,444	622,842	Other post-employment benefits	12,087,137	13,297,158
Total restricted/designated assets	235,489,826	251,851,090	Net pension liability	28,684,748	6,121,872
Prepaid bond costs	6,591,319	7,187,959	Sewer revenue bonds - less current maturities	650,300,000	677,935,000
Nondepreciable capital assets:			Unamortized bond premium	50,763,732	55,857,500
Land	5,344,896	5,344,896	Net long-term debt	701,063,732	733,792,500
Construction in progress	81,287,241	59,836,813	Total long-term liabilities	741,835,617	753,211,530
Total nondepreciable capital assets	86,632,137	65,181,709	Total Liabilities	788,577,991	798,233,271
Depreciable capital assets - at cost, net of accumulated depreciation	542,465,808	557,161,609	Deferred Inflows of Resources:		
Total	629,097,945	622,343,318	Related to pensions	9,341,236	12,389,471
Net pension asset	-	2,705,577	Other post-retirement benefits	1,904,424	-
Total Assets	1,113,659,637	1,091,083,510	Total Deferred Inflows of Resources	11,245,660	12,389,471
Deferred Outflows of Resources:			Net Position:		
Related to pensions	35,676,281	17,633,917	Net investment in capital assets	142,167,140	120,849,236
Other post-retirement benefits	853,236	932,894	Unrestricted	214,476,464	185,255,671
Refunding adjustment	6,278,101	7,077,328	Total Net Position	356,643,604	306,104,907
Total Deferred Outflows of Resources	42,807,618	25,644,139	Total Liabilities, Deferred Inflows of Resources, and Net Position	\$ 1,156,467,255	\$ 1,116,727,649
Total Assets and Deferred Outflows of Resources	\$ 1,156,467,255	\$ 1,116,727,649			

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

# ALLEGHENY COUNTY SANITARY AUTHORITY

## STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
<b>Operating Revenues</b>	\$ 180,238,305	\$ 169,724,327
<b>Operating Expenses:</b>		
Treatment	49,805,868	47,633,280
Intercepting sewer systems	8,753,813	8,490,808
Upper Allegheny system	298,412	563,244
Administrative and engineering	15,962,845	14,736,160
Billing and collecting	3,572,073	3,482,212
Management information systems	3,690,385	3,723,344
Total operating expenses before depreciation	82,083,396	78,629,048
<b>Operating Income Before Depreciation</b>	98,154,909	91,095,279
Depreciation	22,772,539	23,071,589
<b>Operating Income</b>	75,382,370	68,023,690
<b>Non-operating Revenues (Expenses):</b>		
Interest income, net of amounts capitalized	8,966,272	3,127,451
Interest expense on bonds	(28,261,390)	(20,735,872)
Amortization of prepaid bond costs	(596,640)	(629,995)
Change in value of pension related items	(4,177,854)	(61,702)
Change in value of OPEB related items	(774,061)	(789,172)
Total non-operating revenues (expenses)	(24,843,673)	(19,089,290)
<b>Change in Net Position</b>	50,538,697	48,934,400
<b>Net Position:</b>		
Beginning of year	306,104,907	257,170,507
End of year	\$ 356,643,604	\$ 306,104,907

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

# ALLEGHENY COUNTY SANITARY AUTHORITY

## STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018
<b>Cash Flows From Operating Activities:</b>		
Cash received from customers	\$ 177,773,236	\$ 169,143,099
Cash paid to suppliers	(26,631,933)	(24,819,277)
Cash paid to employees	(54,565,812)	(53,827,573)
Net cash provided by (used in) operating activities	96,575,491	90,496,249
<b>Cash Flows From Capital and Related Financing Activities:</b>		
Interest paid on bonds	(32,663,041)	(28,517,266)
Principal paid on bonds	(26,630,000)	(25,395,000)
Proceeds from debt issues	-	157,230,000
Bond premium	-	12,092,896
Prepaid bond costs	-	(1,345,475)
Acquisition and construction of capital assets	(29,438,817)	(34,750,183)
Net cash provided by (used in) capital and related financing activities	(88,731,858)	79,314,972
<b>Cash Flows From Investing Activities:</b>		
Purchase of investment securities	-	(167,022,443)
Proceeds from sale and maturities of investment securities	87,401,292	-
Interest earnings	4,454,725	3,601,398
Net cash provided by (used in) investing activities	91,856,017	(163,421,045)
<b>Increase (Decrease) in Cash and Cash Equivalents</b>	99,699,650	6,390,176
<b>Cash and Cash Equivalents:</b>		
Beginning of year, including \$83,445,720 and \$100,289,509, respectively, in restricted/designated accounts	225,927,940	219,537,764
End of year, including \$150,150,904 and \$83,445,720, respectively, in restricted/designated accounts	\$ 325,627,590	\$ 225,927,940
<b>Noncash Capital and Related Financing Activities:</b>		
Property, plant, and equipment additions reflected in accounts payable	\$ 2,532,565	\$2,444,214
<b>Reconciliation of Operating Income to Net Cash Provided by (Used in) Operating Activities:</b>		
Operating income	\$ 75,382,370	\$ 68,023,690
Adjustments to reconcile operating income to net cash provided by (used in) operating activities:		
Depreciation	22,772,539	23,071,589
Change in operating assets and liabilities:		
Accounts receivable	(2,442,545)	(534,004)
Other current assets	(47,970)	(124,011)
Accounts payable	256,775	168,050
Accrued liabilities	676,847	(61,840)
Pretreatment advance payments	(22,525)	(47,225)
Net adjustments	21,193,121	22,472,559
Net cash provided by (used in) operating activities	\$ 96,575,491	\$ 90,496,249

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

# ALLEGHENY COUNTY SANITARY AUTHORITY

## STATEMENTS OF PLAN NET POSITION PENSION TRUST FUNDS

YEARS ENDED DECEMBER 31,

	2019	2018
<b>Assets</b>		
<hr/>		
Dividends and interest receivable	\$ 482,310	\$ 450,347
Cash and cash equivalents	-	4,042,385
Investments at fair value:		
U.S. government securities	28,482,022	30,379,895
Corporate bonds	23,603,932	20,136,536
Equity securities	123,105,389	101,635,141
Municipal bonds	575,722	607,270
Foreign bonds	1,669,170	887,463
Mortgages	3,791,923	53,860
ETFs	5,864,867	6,891,033
Mutual funds	730,503	966,377
Asset backed securities	1,758,661	-
Noncorporate bonds	2,954,879	-
	<u>192,537,068</u>	<u>161,557,575</u>
Total investments at fair value		
	<u>\$ 193,019,378</u>	<u>\$ 166,050,307</u>
<b>Liabilities and Net Position</b>		
<hr/>		
Liabilities:		
<hr/>		
Purchases pending settlement	\$ -	\$ 3,295,646
Other payables	598,209	-
	<u>598,209</u>	<u>3,295,646</u>
Total Liabilities		
	<u>192,421,169</u>	<u>162,754,661</u>
Net Position:		
<hr/>		
Net position restricted for pension benefits	192,421,169	162,754,661
	<u>\$ 193,019,378</u>	<u>\$ 166,050,307</u>
<b>Total Liabilities and Net Position</b>		

# ALLEGHENY COUNTY SANITARY AUTHORITY

## STATEMENTS OF CHANGES IN PLAN NET POSITION PENSION TRUST FUNDS

YEARS ENDED DECEMBER 31,

	2019	2018
<b>Additions:</b>		
<hr/>		
Contributions:		
Employer	\$ 5,357,378	\$ 5,620,478
Employee	527,193	488,368
	<hr/>	<hr/>
Total contributions	5,884,571	6,108,846
	<hr/>	<hr/>
Investment income:		
Net appreciation (depreciation) in fair value of investments	23,541,491	(14,822,063)
Interest and dividends	4,180,098	3,771,796
	<hr/>	<hr/>
Total investment income	27,721,589	(11,050,267)
	<hr/>	<hr/>
Other income	4,896,644	4,792,866
	<hr/>	<hr/>
Total additions	38,502,804	(148,555)
	<hr/>	<hr/>
<b>Deductions:</b>		
<hr/>		
Benefits	8,199,124	7,639,042
Distribution expenses	132,425	127,494
Administrative expense	504,747	313,624
	<hr/>	<hr/>
Total deductions	8,836,296	8,080,160
	<hr/>	<hr/>
<b>Change in Plan Net Position</b>	29,666,508	(8,228,715)
	<hr/>	<hr/>
<b>Net Position:</b>		
<hr/>		
Beginning of year	162,754,661	170,983,376
	<hr/>	<hr/>
End of year	\$ 192,421,169	\$ 162,754,661
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# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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### 1. Organization

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

In evaluating the Authority as a primary government in accordance with Governmental Accounting Standards Board (GASB) guidance, management has addressed all potential component units. The criteria used by the Authority to evaluate possible inclusion of related entities within its reporting entity are financial accountability and the nature and significance of the relationship.

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

The Authority operates as a stand-alone entity governed by a Board of Directors appointed by the City of Pittsburgh and County of Allegheny. Neither the City of Pittsburgh nor the County of Allegheny appoints a voting majority of the Authority's Board of Directors.

### 2. Summary of Significant Accounting Policies

#### Measurement Focus

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

#### Fiduciary Funds

Fiduciary funds are used to account for assets held in a trustee capacity. The Authority reports the following fiduciary funds:

The *Pension Trust Funds* are used to account for employee retirement systems.

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# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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- The Management Pension Fund accounts for assets of the Authority management employees' retirement pension plan.
- The Union Pension Fund accounts for assets of the Authority union employees' retirement pension plan.

### Basis of Accounting

The financial statements of the Authority for the years ended December 31, 2019 and 2018 have been prepared on the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned and expenses are recognized when incurred.

### Cash and Cash Equivalents

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

### Investments

Investments are recorded at fair value at December 31, 2019 and 2018.

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

### Accounts Receivable

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

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

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# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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### Prepaid Bond Costs

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

<u>Description</u>	<u>Amortization Period</u>
2010 Bonds	30 years
2011 Bonds	9 years
2013 Bonds	31 years
2015 Bonds	30 years
2016 Bonds	21 years
2018 Bonds	30 years

### Refunding Adjustment

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

### Capital Assets

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

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

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

The cost of the study for a potential capital project is capitalized in construction in progress. Upon commencement of the related capital project, the cost of the study is allocated to the

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# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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project. Upon the Authority's final determination that a project is not viable, the cost of the study is expensed.

### Deferred Outflows and Inflows of Resources

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

### Compensated Absences

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

### Pension Plans

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

### Post-retirement Benefits

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

### Deferred Compensation Plan

The Authority offers its employees a deferred compensation plan (plan) created in accordance with Internal Revenue Code Section 457. The plan, available to all employees, permits them to defer a portion of their salaries until future years. Participation in the plan is optional. The deferred compensation is not available to the employee until termination,

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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retirement, death, or unforeseeable emergency. At December 31, 2019 and 2018, all amounts of compensation deferred under the plan, all property and rights purchased with those amounts, and all income attributable to those amounts, are held in trust solely for the benefit of the participants. Investments are managed by the plan's trustee under several investment options selected by the participant. Under applicable GASB pronouncements, the plan is not required to be included in the Authority's financial statements.

### Use of Estimates

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

Management makes significant estimates regarding the amount of unbilled accounts receivable, estimated useful lives of assets, depreciation, reserves for accrued litigation, actuarial valuations of the pension plans and other post-employment benefits liabilities, and environmental contingencies.

### Adopted Pronouncements

The requirements of the following GASB Statements were adopted for the financial statements:

GASB Statement No. 84, "*Fiduciary Activities*," improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how these activities should be reported. The provisions of this statements have been adopted and incorporated into these financial statements. The primary impact of this pronouncement on the Authority's financial statements is the reporting of pension trust funds in the statement of fiduciary net position and the statement of changes in fiduciary net position. The provisions of this statement were applied retrospectively to all periods presented.

GASB Statement No. 88, "*Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*," to improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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to debt. The provisions of this statement have been adopted and incorporated into these financial statements.

Additionally, the Authority early adopted GASB Statement No. 89, "*Accounting for Interest Cost Incurred before the End of Construction Period.*" The objectives of this statement are to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and to simplify accounting for interest cost incurred before the end of a construction period. The provisions of this statement have been adopted and incorporated into these financial statements, see Footnote 4 for further discussion.

### Pending Pronouncements

GASB has issued statements that will become effective in future years including Statement Nos. 87 (Leases), 91 (Conduit Debt Obligations), and 92 (Omnibus 2020). Management has not yet determined the impact of these statements on the financial statements.

### **3. Revenue Bonds**

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

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

The 2010 Bonds bear interest at rates ranging from 1.50% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. Stated maturities for the 2005 Bonds are at various face amounts on December 1 of each year beginning December 1, 2010 through 2012 and June 1, 2013 through 2040. The 2010 Bonds, which have a final maturity date of June 1, 2040, are subject to redemption prior to maturity. At December 31, 2019 and 2018, the 2010 Bonds payable consisted of \$105,195,000 and \$105,415,000, respectively.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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

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

The 2011 Bonds bear interest at rates ranging from 1.50% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2011 Bonds, which were repaid in full during the year, had an outstanding balance of \$23,010,000 as of December 31, 2018.

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

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

The 2013 Bonds bear interest at rates ranging from 3.50% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2013 Bonds, which have a final maturity date of December 1, 2044, are subject to redemption prior to maturity. At December 31, 2019 and 2018, the 2013 Bonds payable was \$64,755,000.

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

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

The 2015 Bonds bear interest at rates ranging from 2.00% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2015 Bonds, which have a final maturity date of December 1, 2045, are subject to redemption prior to maturity. At December 31, 2019 and 2018, the 2015 Bonds payable consisted of \$246,300,000 and \$249,450,000, respectively.

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# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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On September 8, 2016, the Authority issued \$106,205,000 of Sewer Revenue Bonds Refunding Series of 2016, called the 2016 Bonds. The proceeds of the bonds were used to advance refund all of the Authority's outstanding Sewer Revenue Bonds Refunding Series of 2007 and to provide additional funding for the Authority's capital projects. The defeased bonds were repaid in full during 2017.

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

The 2016 Bonds bear interest at rates ranging from 0.90% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2016 Bonds, which have a final maturity date of December 1, 2037, are subject to redemption prior to maturity. At December 31, 2019 and 2018, the 2016 Bonds payable consisted of \$104,455,000 and \$104,705,000, respectively.

On September 6, 2018, the Authority issued \$157,230,000 of Sewer Revenue Bonds Series of 2018, called the 2018 Bonds. The proceeds of the bonds were to finance a portion of the Authority's capital budget for the years 2018 to 2020.

The 2018 Bonds were issued at a premium of \$12,092,896, which is being amortized as an adjustment to interest expense over the life of the bonds, using the effective interest method.

The 2018 Bonds bear interest at rates ranging from 3.25% to 5.00%. Interest is payable in semiannual installments on June 1 and December 1 until maturity. The 2018 Bonds, which have a final maturity date of June 1, 2048, are subject to redemption prior to maturity. At December 31, 2019 and 2018, the 2018 Bonds payable consisted of \$157,230,000.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

A summary of long-term debt is as follows for the years ended December 31, 2019 and 2018, respectively:

	Balance 1/1/2019	Accretions/ New Issue	Retired	Balance 12/31/2019	Unamortized Premium	Bonds Payable, net	Current Portion
2010 Series	\$ 105,415,000	\$ -	\$ (220,000)	\$ 105,195,000	\$ 3,104,226	\$ 108,299,226	\$ 180,000
2011 Series	23,010,000	-	(23,010,000)	-	-	-	-
2013 Series	64,755,000	-	-	64,755,000	1,933,670	66,688,670	-
2015 Series	249,450,000	-	(3,150,000)	246,300,000	23,904,336	270,204,336	27,455,000
2016 Series	104,705,000	-	(250,000)	104,455,000	10,446,099	114,901,099	-
2018 Series	157,230,000	-	-	157,230,000	11,375,401	168,605,401	-
Total	<u>\$ 704,565,000</u>	<u>\$ -</u>	<u>\$ (26,630,000)</u>	<u>\$ 677,935,000</u>	<u>\$ 50,763,732</u>	<u>\$ 728,698,732</u>	<u>\$ 27,635,000</u>

	Balance 1/1/2018	Accretions/ New Issue	Retired	Balance 12/31/2018	Unamortized Premium	Bonds Payable, net	Current Portion
2010 Series	\$ 105,630,000	\$ -	\$ (215,000)	\$ 105,415,000	\$ 3,321,093	\$ 108,736,093	\$ 220,000
2011 Series	44,910,000	-	(21,900,000)	23,010,000	395,995	23,405,995	23,010,000
2013 Series	64,755,000	-	-	64,755,000	2,064,437	66,819,437	-
2015 Series	252,480,000	-	(3,030,000)	249,450,000	26,880,475	276,330,475	3,150,000
2016 Series	104,955,000	-	(250,000)	104,705,000	11,239,654	115,944,654	250,000
2018 Series	-	157,230,000	-	157,230,000	11,955,846	169,185,846	-
Total	<u>\$ 572,730,000</u>	<u>\$ 157,230,000</u>	<u>\$ (25,395,000)</u>	<u>\$ 704,565,000</u>	<u>\$ 55,857,500</u>	<u>\$ 760,422,500</u>	<u>\$ 26,630,000</u>

The 2010, 2011, 2013, 2015, 2016, and 2018 Bonds are collateralized by the net revenues of the Authority, by Surety Bonds, in lieu of cash, as required by the trustee and all amounts held in the Revenue Fund and all amounts held by the trustees.

### Schedule of Required Debt Service

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

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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

	2019	2018
Current account:		
Revenue Fund	\$ 175,476,686	\$ 142,482,220
Special accounts:		
Capital Facilities Fund	\$ 78,136,787	\$ 69,547,819
Construction Fund - 2013	-	-
Construction Fund - 2015	-	12,919,589
Construction Fund - 2018	157,337,837	169,360,348
	\$ 235,474,624	\$ 251,827,756
Debt service accounts:		
Debt Service Fund	\$ 15,202	\$ 23,334

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

	Principal	Interest	Total Debt Service
2020	\$ 27,635,000	\$ 31,662,193	\$ 59,297,193
2021	28,975,000	30,328,168	59,303,168
2022	30,415,000	28,884,643	59,299,643
2023	31,945,000	27,369,893	59,314,893
2024	30,595,000	25,707,819	56,302,819
2025-2029	131,830,000	107,079,919	238,909,919
2030-2034	111,190,000	79,362,109	190,552,109
2035-2039	128,960,000	53,697,637	182,657,637
2040-2044	106,490,000	24,748,763	131,238,763
2045-2048	49,900,000	4,003,053	53,903,053
Total	\$ 677,935,000	\$ 412,844,197	\$ 1,090,779,197

The total debt service schedule in Note 13 represents the total debt service requirements (principal, interest, and sinking fund requirements) of the Authority's bond issuances, by issue and in the aggregate.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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### 4. Interest Cost

Interest cost, including amortization of refunding adjustments, bond discounts/premiums, and prepaid bond costs, for the years ended December 31, 2019 and 2018 were as follows:

	<u>2019</u>	<u>2018</u>
2010 Bonds	\$ 5,135,326	\$ 5,141,683
2011 Bonds	588,142	1,468,143
2013 Bonds	3,149,935	3,149,935
2015 Bonds	9,808,789	9,907,256
2016 Bonds	3,642,744	3,644,893
2018 Bonds	<u>6,533,094</u>	<u>2,129,949</u>
	<u>\$ 28,858,030</u>	<u>\$ 25,441,859</u>

As a result of the adoptions of GASB 89 in the current year, the Authority no longer capitalizes interest costs from tax exempt borrowings incurred during construction, net of interest earned on funds restricted for the purpose of construction of assets or payments of debt service. Capitalized interest, net of interest earned, for the year ended December 31, 2018 was \$4.1 million.

### 5. Deposits and Investments with Financial Institutions

The investment and deposit policy of the Authority funds is governed by the Trust Indentures and the Municipal Authority Act. In accordance with these regulations, the Authority is authorized to invest in obligations of the U.S. Treasury, agencies and instrumentalities; certificates of deposits, time deposits or deposits in savings accounts, fully insured or collateralized; commercial paper of the highest rating; bonds or notes issued by the Commonwealth of Pennsylvania, political subdivision, or related school district; repurchase agreements; money market mutual funds; and investment agreements with any bank or insurance company. Throughout the years ended December 31, 2019 and 2018, the Authority invested in authorized investments that consisted of U.S. government obligations, short-term commercial paper, money market mutual funds, an external investment pool, and guaranteed investment contracts. There were no deposit or investment transactions during 2019 and 2018 that were in violation of either state statutes or the policies of the Authority. The Authority does not have a formal investment policy which addresses custodial credit risk,

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# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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interest rate risk, credit risk, or concentration of credit risk. The Authority can withdraw funds from the external investment pools without limitations or fees.

GASB requires disclosures related to the following deposit and investment risks: credit risk (including custodial credit risk and concentrations of credit risk), interest rate risk, and foreign currency risk. The following is a description of the Authority's deposit and investment risks:

**Custodial Credit Risk** - Custodial credit risk is the risk that in the event of a bank failure, the Authority's deposits may not be returned to it. As of December 31, 2019, \$20,824,223 of the Authority's bank balance of \$21,257,698 was exposed to custodial credit risk, which is collateralized in accordance with Act 72 of the Pennsylvania state legislature which requires the institution to pool collateral for all governmental deposits and have the collateral held by an approved custodian in the institution's name. These deposits have carrying amounts of \$20,907,643 as of December 31, 2019. As of December 31, 2018, \$8,540,824 of the Authority's bank balance of \$8,953,506 was exposed to custodial credit risk, which is collateralized in accordance with Act 72 of the Pennsylvania state legislature which requires the institution to pool collateral for all governmental deposits and have the collateral held by an approved custodian in the institution's name. These deposits have carrying amounts of \$8,830,417 as of December 31, 2018.

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

At December 31, 2019, the Authority held the following investment balances:

	Carrying Value	Maturity in Years	
		Less Than 1 Year	1-5 Years
U.S. Government Agencies	\$ 84,963,478	\$ 84,963,478	\$ -
Money Market Funds	302,533,615	302,533,615	-
PA INVEST	2,186,332	2,186,332	-
Total	<u>\$ 389,683,425</u>	<u>\$ 389,683,425</u>	<u>\$ -</u>

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

At December 31, 2018, the Authority held the following investment balances:

	Carrying Value	Maturity in Years Less Than 1 Year	1-5 Years
U.S. Government Agencies	\$ 167,782,990	\$ 83,716,193	\$ 84,066,797
Money Market Funds	214,959,068	214,959,068	-
PA INVEST	2,137,993	2,137,993	-
Total	<u>\$ 384,880,051</u>	<u>\$ 300,813,254</u>	<u>\$ 84,066,797</u>

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

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

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

**Credit Risk** – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. As of December 31, 2019 and 2018, the Authority's investment in the state investment pool (INVEST) was rated AAA by Standard & Poor's. 100% of the Authority's investments in money market funds are rated AAA by Standard & Poor's and AAA by Moody's.

**Concentration of Credit Risk** – Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investments in a single issuer. As of December 31, 2019 and 2018, the Authority did not have a high concentration of investments in any one issuer.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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### Pension Trust Funds

The pension trust funds are used to account for assets held by the Authority in a trustee capacity for future payment of retirement benefits to employees or former employees.

The pension trust funds' investments in money markets, equity, and fixed-income funds, and guaranteed interest accounts are not exposed to custodial credit risk because they are not evidenced by securities that exist in physical or book-entry form. Investments in common stock are not subject to the disclosure requirements of GASB Statement No. 40.

The following is a description of the pension trust funds' investment risks:

*Credit risk.* The risk that an issuer or other counterparty to an investment will not fulfill its obligations is called credit risk. As of December 31, 2019 and 2018, the pension trust funds' investments in fixed income bonds for the Management Plan and Union Plan were rated as follows:

Bond ratings	Fiduciary Fund	
	2019 Market Value	2018 Market Value
Moody's Aaa	\$ 34,319,748	\$ 28,273,145
Moody's Aa1	769,049	302,244
Moody's Aa2	776,391	483,106
Moody's A1	2,393,441	1,986,054
Other	24,577,680	21,020,515
Total	<u>\$ 62,836,309</u>	<u>\$ 52,065,064</u>

The remaining mutual funds, stocks, mortgages, common/collective trusts, and EFTs were not rated by nationally recognized statistical rating organizations.

*Interest Rate Risk.* Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the pension trust funds' investments. The pension trust funds do not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The following table shows investment maturities in years for pension trust fund investments with maturities:

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

Investment Type	Fair Value	Investment Maturities (In Years) from December 31, 2019				
		Less than 1 Year	1-5 Years	6-10 Years	11-15 Years	16 or more Years
Corporate bonds	\$ 23,603,932	\$ 590,562	\$ 11,146,381	\$ 7,411,104	\$ 341,574	\$ 4,114,311
US treasury and agency	28,482,022	1,387,721	10,780,174	4,860,793	1,597,010	9,856,324
Municipal	575,722	-	230,074	110,162	90,058	145,428
Total securities with maturities	<u>\$ 52,661,676</u>	<u>\$ 1,978,283</u>	<u>\$ 22,156,629</u>	<u>\$ 12,382,059</u>	<u>\$ 2,028,642</u>	<u>\$ 14,116,063</u>

Investment Type	Fair Value	Investment Maturities (In Years) from December 31, 2018				
		Less than 1 Year	1-5 Years	6-10 Years	11-15 Years	16 or more Years
Corporate bonds	\$ 20,136,536	\$ 1,130,127	\$ 9,875,209	\$ 5,532,693	\$ 297,615	\$ 3,300,892
US treasury and agency	30,379,895	5,899,408	13,509,919	3,659,139	-	7,311,429
Municipal	607,270	167,515	86,189	353,566	-	-
Total securities with maturities	<u>\$ 51,123,701</u>	<u>\$ 7,197,050</u>	<u>\$ 23,471,317</u>	<u>\$ 9,545,398</u>	<u>\$ 297,615</u>	<u>\$ 10,612,321</u>

Financial instruments potentially expose the pension trust funds to various risks such as concentrations of credit risk and market risks. Concentration of credit risk for investments in marketable securities is mitigated by the overall diversification of managed investment portfolios. Due to the level of risk associated with certain investments, it is at least reasonably possible that changes in values of investments will occur in the near term and that such change could materially affect the amount reported on the combined statement of fiduciary net position.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

The composition of the pension trust funds is noted below, along with the fair value measurements as of December 31, 2019:

Investments by Fair Value Level:	December 31, 2019	December 31, 2018
Fixed Income:		
US Treasury Bonds	\$ 10,382,437	\$ 26,417,595
US Agency Bonds	18,099,585	3,962,300
Asset Backed Securities	1,758,661	-
Corporate Bonds	21,769,670	20,136,536
Utility Bonds	1,834,262	-
Municipal Bonds	575,722	607,270
Foreign Bonds	1,669,170	887,463
Noncorporate Bonds	2,954,879	-
Mortgages and mortgage backed securities	3,791,923	53,860
Total Fixed Income	62,836,309	52,065,024
Equities:		
Mutual Funds	730,503	966,377
Preferred Stock	-	145,350
Common Stocks:		
Capital Goods	3,860,612	2,724,982
Industrials	2,518,014	1,742,012
Consumer Discretionary	4,079,307	2,029,071
Consumer Staples	3,447,758	4,491,174
Energy	5,916,198	7,919,344
Food, Bev, Tobacco, & Personal Products	4,876,668	4,357,626
Financials	10,978,442	12,663,054
Materials	1,592,385	3,662,138
Transportation	4,452,072	2,631,848
Retail	9,487,249	3,868,549
Pharm/Biotech	15,458,181	14,361,632
Insurance	2,458,541	2,610,038
Information Technology	21,260,183	12,678,448
Software & Services	12,316,880	11,675,754
Media	5,559,296	4,781,578
Real Estate	3,304,533	1,664,244
Utilities	4,050,995	2,275,650
Health Care	4,679,908	3,262,047
Telecommunications	2,808,167	2,090,602
ETFs - Growth	5,864,867	6,891,033
Total Equities	129,700,759	109,492,551
Total investments by fair value level	\$ 192,537,068	\$ 161,557,575

US Treasury bonds, asset backed securities, utility bonds, noncorporate bonds, mutual funds, preferred stock, common stock, and exchange traded funds are valued using quoted marked prices (Level 1 inputs). Corporate, municipal, and foreign bonds as well as mortgages are valued using a matrix pricing model (Level 2 inputs). The fair values of U.S. government agency securities are priced using the spread above the risk-free yield curve. As the yields for

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

the risk-free yield curve and the spreads for these securities are observable market inputs, the fair values of U.S. government agency securities are included in the Level 2 fair value hierarchy.

### 6. Capital Assets

A summary of capital assets is as follows:

	2019	2018
Nondepreciable assets:		
Land	\$ 5,344,896	\$ 5,344,896
Construction in progress	81,287,241	59,836,813
Total nondepreciable assets	<u>86,632,137</u>	<u>65,181,709</u>
Depreciable assets:		
Land improvements	4,805,250	4,805,250
Buildings and improvements	467,618,174	467,090,622
Utility plant in service	256,546,851	253,080,113
Machinery and equipment	338,657,202	336,330,360
GROW Program	2,189,927	903,173
Total depreciable assets	<u>1,069,817,404</u>	<u>1,062,209,518</u>
Less: accumulated depreciation	<u>527,351,596</u>	<u>505,047,909</u>
Net depreciable assets	<u>542,465,808</u>	<u>557,161,609</u>
Total capital assets	<u>\$ 629,097,945</u>	<u>\$ 622,343,318</u>

The Authority has spent \$81,287,241 and \$59,836,813 for construction in progress as of December 31, 2019 and 2018, respectively, with estimated remaining total expansion costs of approximately \$800,436,827, which are anticipated to occur over the next five years. These expansion costs are primarily attributable to activities required by the Consent Decree further discussed in Note 10.

### 7. Pension Plans

*General Information About the Pension Plans.* The Authority has two single-employer defined benefit pension plans covering substantially all full-time employees: the Management Employees Plan (Management Plan) and the Union Employees Plan (Union Plan). The Union Plan is a contributory plan including all members of the utility workers' collective bargaining

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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unit and the Management Plan is a contributory plan available to all Authority employees not participating in the Union Plan. The Authority's pension plans, the Management Employees Plan and Union Employees Plan (Plans), are governed by independent boards composed primarily of participants in the Plans, and the Authority does not directly participate in the management of the Plans.

### Management and Union Plans - Summary of Significant Accounting Policies

Financial information is presented on the accrual basis of accounting. Employer contributions to the Plans are recognized when earned. Benefits and refunds are recognized when incurred, in accordance with the terms of each Plan.

Each Plans asset are reported at fair value. Neither Plan had any investment transactions with related parties during the year.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

### Statements of Plan Net Position – Management and Union Plans

#### COMBINING STATEMENT OF PLAN NET POSITION PENSION TRUST FUNDS

YEAR ENDED DECEMBER 31,

	Management 2019	Management 2018	Union 2019	Union 2018
<b>Assets</b>				
Dividends and interest receivable	\$ 165,480	\$ 146,919	\$ 316,830	\$ 303,428
Cash and cash equivalents	-	-	-	4,042,385
Investments at fair value:				
U.S. government securities	12,916,458	8,268,174	15,565,564	22,111,721
Corporate bonds	6,777,935	8,009,497	16,825,997	12,127,039
Equity securities	26,051,710	18,227,819	97,053,679	83,407,322
Municipal bonds	230,074	219,608	345,648	387,662
Foreign bonds	-	-	1,669,170	887,463
Mortgages	27,591	53,860	3,764,332	-
ETFs	5,864,867	6,891,033	-	-
Mutual funds	730,503	966,377	-	-
Asset backed securities	-	-	1,758,661	-
Noncorporate bonds	-	-	2,954,879	-
<b>Total investments at fair value</b>	<b>52,599,138</b>	<b>42,636,368</b>	<b>139,937,930</b>	<b>118,921,207</b>
<b>Total Assets</b>	<b>\$ 52,764,618</b>	<b>\$ 42,783,287</b>	<b>\$ 140,254,760</b>	<b>\$ 123,267,020</b>
<b>Liabilities and Net Position</b>				
<b>Liabilities:</b>				
Purchases pending settlement	\$ -	\$ -	\$ -	\$ 3,295,646
Other payables	-	-	598,209	-
<b>Total Liabilities</b>	<b>-</b>	<b>-</b>	<b>598,209</b>	<b>3,295,646</b>
<b>Net Position:</b>				
Net position restricted for pension benefits	52,764,618	42,783,287	139,656,551	119,971,374
<b>Total Liabilities and Net Position</b>	<b>\$ 52,764,618</b>	<b>\$ 42,783,287</b>	<b>\$ 140,254,760</b>	<b>\$ 123,267,020</b>

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

### Statements of Changes in Plan Net Position – Management and Union Plans

#### COMBINING STATEMENT OF CHANGES IN PLAN NET POSITION PENSION TRUST FUNDS

YEAR ENDED DECEMBER 31, 2019

	Management 2019	Management 2018	Union 2019	Union 2018
<b>Additions:</b>				
Contributions:				
Employer	\$ 2,376,191	\$ 2,516,461	\$ 2,981,187	\$ 3,104,017
Employee	303,018	276,848	224,175	211,520
Total contributions	<u>2,679,209</u>	<u>2,793,309</u>	<u>3,205,362</u>	<u>3,315,537</u>
Investment income:				
Net appreciation (depreciation) in fair value of investments	8,563,244	(2,599,654)	14,978,247	(12,222,409)
Interest and dividends	1,140,200	961,979	3,039,898	2,809,817
Total investment income	<u>9,703,444</u>	<u>(1,637,675)</u>	<u>18,018,145</u>	<u>(9,412,592)</u>
Other income	31,235	10,568	4,865,409	4,782,298
Total additions	<u>12,413,888</u>	<u>1,166,202</u>	<u>26,088,916</u>	<u>(1,314,757)</u>
<b>Deductions:</b>				
Benefits	2,254,417	2,112,745	5,944,707	5,526,297
Distribution expenses	132,425	127,494	-	-
Administrative expense	45,715	42,086	459,032	271,538
Total deductions	<u>2,432,557</u>	<u>2,282,325</u>	<u>6,403,739</u>	<u>5,797,835</u>
<b>Change in Plan Net Position</b>	9,981,331	(1,116,123)	19,685,177	(7,112,592)
<b>Net Position:</b>				
Beginning of year	42,783,287	43,899,410	119,971,374	127,083,966
End of year	<u>\$ 52,764,618</u>	<u>\$ 42,783,287</u>	<u>\$ 139,656,551</u>	<u>\$ 119,971,374</u>

### Plan Benefits

*Normal Retirement.* Under each of the plans, employees' eligibility for normal benefits begins at age 65, at which time the individual is entitled to an annual retirement benefit, payable monthly for life. For the Management Plan, this benefit is equal to 2.5% of the first \$4,200 of average compensation for each year of Credited Service, plus 2.5% of 3-year compensation

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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

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

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

*Disability Retirement.* For both plans, disability retirement is available upon evidence of total and permanent disability and after 10 years of Credit Service. The disability benefit is based on average compensation and service at the time of disability. The disability benefit is limited to the amount which, when added to worker's compensation, equals 100% of base pay. The disability benefit is payable immediately, with no reduction for commencement before Normal Retirement Date.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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*Termination Benefits.* For both plans, a participant is fully vested in his accrued benefit after 15 years of Credited Service or upon attainment of Normal Retirement age. Partial vesting occurs after 5 years of Credited Service, in accordance with the following schedule:

<u>Credited Service</u>	<u>Vested Percentage</u>	<u>Credited Service</u>	<u>Vested Percentage</u>
Less than 5 years	0%	10 years	50%
5 years	25%	11 years	60%
6 years	30%	12 years	70%
7 years	35%	13 years	80%
8 years	40%	14 years	90%
9 years	45%	15 or more years	100%

The vested accrued benefit will be payable in full at Normal Retirement Date. Reduced payment can begin as early as age 55 if the participant had 15 years (Union Plan) or 10 years (Management Plan) of Credited Service upon termination of employment. For the Union Plan, the benefit reduction for early commencement is the same as the reduction described for Early Retirement. For the Management Plan, the benefit reduction for early commencement is one-half of 1% for each month prior to normal retirement date, and a participant who satisfies the eligibility requirements for Early Retirement upon termination of employment is deemed to be fully vested. Employee contribution balances are always 100% vested. A participant who terminates employment with less than 5 years of Credited Service will be entitled to the return of his contributions with interest. A participant who terminates employment with partial vesting may elect a return of his contributions with interest. Such participant will have a residual benefit equal to the vested percentage of his accrued benefit based on Credited Service only (that is, the portion of the benefit based on the first \$4,200 of compensation). A participant who withdrew contributions upon termination of employment and who is reemployed by the Authority will have the opportunity to repay his withdrawn contributions, with interest, for the purpose of restoring previously earned Contributory Service.

*Pre-Retirement Spouse's Benefit.* Upon the death of an active participant before retirement but after 5 years of Credited Service, the surviving spouse will receive 100% of the accrued benefit, determined without regard to the participant's vested percentage. If the spouse is under age 50, the 100% is reduced by 0.5% for each year and a fraction under age 50. For deaths occurring prior to January 1, 2004 (Union Plan) or 2006 (Management Plan), the surviving spouse received 100% of the vested accrued benefit. Upon the death of a terminated vested participant prior to the commencement of any benefits, the beneficiary shall receive an amount equal to the participant's personal contributions, if any, plus interest at the rate of 3% per year.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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*Post-Retirement Medical Benefit Payment.* For the Management Plan, when a retired participant who was contributing at the rate of 3% attains age 65, such retired participant will receive an additional monthly benefit equal to two times the Medicare Part B premium in effect at that time, payable for the remainder of the participant's life.

*Post-Retirement Lump Sum Death Benefit.* For the Management Plan, participants retiring under either the Normal or Early Retirement provisions who were contributing at the rate of 3% will be eligible for a post-retirement death benefit of \$2,000. Such benefit will be paid to the designated beneficiary.

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

	<u>Management</u>	<u>Union</u>	<u>Total</u>
Inactive plan members or beneficiaries currently receiving benefits	73	184	257
Inactive plan members entitled to but not yet receiving benefits	20	33	53
Active plan members	<u>131</u>	<u>282</u>	<u>413</u>
Total plan members	<u>224</u>	<u>499</u>	<u>723</u>

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

*Net Pension Liability (Asset).* The Authority's net pension liability (asset) for 2018 and 2019 was measured as of December 31, 2017 and 2018, respectively. The total pension liability used to calculate the net pension liability (asset) was determined by actuarial valuations as of those respective measurement dates.

*Actuarial Assumptions.* The total pension liability in the December 31, 2018 and 2017 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial cost method	Entry age normal
Actuarial assumptions:	
Investment rate of return	7.00%
Underlying inflation rate	2.30%
Salary projection	4.00%

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# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

For both plans - Base mortality tables are applied to participant categories as follows:

- Active participants and terminated participants with deferred benefits: PubG-2010(A)
- Employee Table
- Non-disabled participants in payment status: PubG-2010(A) Retiree Table
- Disabled participants: PubNS-2010 Disabled Retiree Table
- Surviving beneficiaries: PubCS-2010(A) Contingent Survivor Table

For the January 1, 2019 valuation, fully generational mortality improvement for all participant categories is projected under Scale MP-2018. The MP scale is updated annually by the Society of Actuaries. Annual updates to the MP scale will be applied to each future actuarial valuation. The MP scale update will be treated as an actuarial experience gain or loss, rather than as an assumption change.

Actuarial assumptions used in the respective valuations were based on actuarial experience studies for the period January 1, 2017 to December 31, 2017 and January 1, 2018 to December 31, 2018.

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

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

Asset Class	Management Plan		Union Plan	
	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
US equity	70.0%	5.76%	70.0%	5.76%
Fixed income	30.0%	1.00%	30.0%	1.00%
	<u>100.0%</u>		<u>100.0%</u>	

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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*Discount Rate.* The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that the Authority's contributions will be made based on the actuarially determined contribution. Based on those assumptions, the fiduciary net position of each plan was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

*Concentrations* – The Management Plan and the Union Plan did not have investments in a single issuer that exceeded 5% of the respective plan's fiduciary net position at December 31, 2019 and 2018.

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

	Management Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/18	\$ 50,021,282	\$ 43,899,410	\$ 6,121,872
Changes for the year:			
Service cost	1,826,493	-	1,826,493
Interest	3,650,643	-	3,650,643
Differences between expected and actual experience	832,893	-	832,893
Changes of benefit terms	-	-	-
Changes of assumptions	1,093,916	-	1,093,916
Employer contributions	-	2,516,460	(2,516,460)
Member contributions	-	276,848	(276,848)
Net investment income	-	(1,796,686)	1,796,686
Benefit payments, including refunds of employee contributions	(2,112,745)	(2,112,745)	-
Balances at 12/31/19	<u>\$ 55,312,482</u>	<u>\$ 42,783,287</u>	<u>\$ 12,529,195</u>
Plan fiduciary net position as a percentage of total pension liability			<u>77.35%</u>

Net investment income includes \$169,580 of trustee and other investment related expenses.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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	Management Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/17	\$ 46,810,630	\$ 38,156,297	\$ 8,654,333
Changes for the year:			
Service cost	1,668,851	-	1,668,851
Interest	3,420,033	-	3,420,033
Differences between expected and actual experience	(70,800)	-	(70,800)
Changes of benefit terms	-	-	-
Changes of assumptions	-	-	-
Employer contributions	-	1,916,633	(1,916,633)
Member contributions	-	266,378	(266,378)
Net investment income	-	5,367,534	(5,367,534)
Benefit payments, including refunds of employee contributions	(1,807,432)	(1,807,432)	-
Balances at 12/31/18	\$ 50,021,282	\$ 43,899,410	\$ 6,121,872
Plan fiduciary net position as a percentage of total pension liability			87.76%

Net investment income includes \$162,181 of trustee and other investment related expenses.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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	Union Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/18	\$ 124,378,389	\$ 127,083,966	\$ (2,705,577)
Changes for the year:			
Service cost	3,140,218	-	3,140,218
Interest	8,965,814	-	8,965,814
Differences between expected and actual experience	(1,116,208)	-	(1,116,208)
Changes of benefit terms	-	-	-
Changes of assumptions	6,285,011	-	6,285,011
Employer contributions	-	3,085,110	(3,085,110)
Member contributions	-	230,428	(230,428)
Net investment income	-	(4,901,833)	4,901,833
Benefit payments, including refunds of employee contributions	(5,526,297)	(5,526,297)	-
Balances at 12/31/19	<u>\$ 136,126,927</u>	<u>\$ 119,971,374</u>	<u>\$ 16,155,553</u>
Plan fiduciary net position as a percentage of the total pension liability			<u>88.13%</u>

Net investment income includes \$271,538 of trustee and other investment related expenses.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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	Union Plan		
	Total Pension Liability	Plan Net Position	Net Pension Liability (Asset)
Balances at 12/31/17	\$ 118,198,928	\$ 110,431,556	\$ 7,767,372
Changes for the year:			
Service cost	2,944,731	-	2,944,731
Interest	8,525,299	-	8,525,299
Differences between expected and actual experience	(238,155)	-	(238,155)
Changes of benefit terms	-	-	-
Changes of assumptions	-	-	-
Employer contributions	-	3,059,402	(3,059,402)
Member contributions	-	219,633	(219,633)
Net investment income	-	18,425,789	(18,425,789)
Benefit payments, including refunds of employee contributions	(5,052,414)	(5,052,414)	-
Balances at 12/31/18	<u>\$ 124,378,389</u>	<u>\$ 127,083,966</u>	<u>\$ (2,705,577)</u>
Plan fiduciary net position as a percentage of the total pension liability			<u>102.18%</u>

Net investment income includes \$334,371 of trustee and other investment related expenses.

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

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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*Sensitivity of the Net Pension Liability to Changes in Discount Rate.* The following presents the net pension liability (asset) of the Authority, calculated using the discount rate of 7.00%, as well as what the Authority's net pension liability (asset) would be if it were calculated using a discount rate that is 1% lower (6.00%) or 1% higher (8.00%) than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Management	\$ 19,742,177	\$ 12,529,194	\$ 6,473,604
Union	33,694,481	16,155,554	1,442,201
	\$ 53,436,658	\$ 28,684,748	\$ 7,915,805

*Pension Expense and Deferred Inflows/Outflows of Resources Related to Pensions.* For the years ended December 31, 2019 and 2018, the Authority recognized pension expense of \$9,806,249 and \$5,663,272, respectively. At December 31, 2019 and 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 1,737,610	\$ 1,441,696
Changes of assumptions	10,475,080	-
Net difference between projected and actual earnings on pension plan investments	17,835,196	7,899,540
Contributions made subsequent to the measurement date	5,628,395	-
	\$ 35,676,281	\$ 9,341,236

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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	2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 1,402,227	\$ 590,418
Changes of assumptions	5,367,589	-
Net difference between projected and actual earnings on pension plan investments	5,262,531	11,799,053
Contributions made subsequent to the measurement date	5,601,570	-
	<u>\$ 17,633,917</u>	<u>\$ 12,389,471</u>

Deferred outflows of resources related to Authority pension contributions subsequent to the measurement date of \$5,628,395 and \$5,601,570 will be recognized as a reduction of the net pension liability in the years ending December 31, 2019 and 2018, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

<u>Year Ending December 31,</u>	<u>Deferred Outflows</u>	<u>Deferred Inflows</u>
2020	\$ 9,127,596	\$ 2,898,109
2021	6,449,164	2,898,109
2022	5,946,305	2,864,400
2023	5,554,695	208,739
2024	1,371,524	192,643
2025	953,988	164,756
2026	644,614	114,480
	<u>\$ 30,047,886</u>	<u>\$ 9,341,236</u>

### 8. Postemployment Benefits Other Than Pensions

*General Information About the OPEB Plans.* In addition to the pension benefits described in Note 7, the Authority provides certain post-retirement healthcare benefits to management and union retirees until age 65, which is a defined benefit, single-employer plan administered by the Authority. No assets are accumulated in a trust that meets the criteria of paragraph 4

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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of GASB Statement 75. This plan does not issue stand-alone Financial Statements.

In accordance with the Authority's Policy and Procedures Manual for Management Employees, certain healthcare benefits and life insurance are provided to all management employees, and their dependents, who retire on or after attaining age 55 with at least ten years of credited service. These benefits cease when the retiree turns 65.

Additionally, in accordance with the current labor agreement between the Authority and the Utility Workers Union of America AFL-CIO Local 433, certain healthcare benefits are provided to all union employees and their dependents who retire at age 60 through age 65 with 25 years of credited service. In addition to the healthcare benefits, the Authority provides full hospitalization for retirees and their dependents between the ages of 62 and 65 with 15 to 24 years of credited service and 25% of the life insurance coverage that was provided while employed with the Authority will be carried into retirement.

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

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

Active employees	413
Retired employees with health coverage	15
Retired employees with life insurance only	<u>141</u>
Total active and inactive employees	<u>569</u>

*Actuarial Assumptions.* The methods and assumptions are as follows:

- Discount rate, using Fidelity Fixed Income Market Data for Municipal GO AA Yield Curve at 20 years: 3.71%
  - The Cadillac tax thresholds will increase 3.1% in 2019. This includes the 1% additional increase required by law for that year and is based on available Chained CPI-U data. Federal health care law, signed in January 2018, will delay the Cadillac tax to 2022.
  - Actuarial cost method: Individual Entry Age Normal Level Percent of Pay
  - Salary increase: 4.0% annually
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# ALLEGHENY COUNTY SANITARY AUTHORITY

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Mortality rate – Base mortality tables are applied to participant categories as follows:

- Active participants and terminated participants with deferred benefits: PubG-2010(A)
- Employee Table
- Non-disabled participants in payment status: PubG-2010(A) Retiree Table
- Disabled participants: PubNS-2010 Disabled Retiree Table
- Surviving beneficiaries: PubCS-2010(A) Contingent Survivor Table

For the January 1, 2019 valuation, fully generational mortality improvement for all participant categories is projected under Scale MP-2018. The MP scale is updated annually by the Society of Actuaries. Annual updates to the MP scale will be applied to each future actuarial valuation. The MP scale update will be treated as an actuarial experience gain or loss, rather than as an assumption change.

- Short and long term medical and prescription drug trend assumptions used to project healthcare costs and drug coverage premiums were revised. The short-term trend was revised to consider more recent data. The long term trend, beginning in 2028, was revised using an updated Society of Actuaries (SOA) Long Term Healthcare Cost Trends Model.
- Historical trend rates, which are needed for normal cost allocation under Entry Age method

<u>Year</u>	<u>Medical Trend</u>	<u>Drug Trend</u>	<u>Year</u>	<u>Medical and Drug Trend</u>
2018	6.75%	10.50%	1995	5.30%
2017	5.70%	5.20%	1990	8.80%
2016	7.10%	8.10%	1985	8.70%
2015	6.80%	11.10%	1980	10.80%
2010	7.60%	6.40%	1975	15.80%
2005	10.40%	10.50%	1970	13.40%
2000	10.90%	10.90%	1965	11.10%

The Retirement assumption was selected based upon a study of plan experience for the period 2003 to 2013. The Turnover assumption was selected based upon a study of plan experience for the period 2007 to 2013.

*Changes in Actuarial Assumptions.* The assumed discount rate of 3.31% as of the beginning of the measurement period was changed to 3.71% as of the end of the measurement period.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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*Changes in the Total OPEB Liability.* The changes in the total OPEB liability of the Authority for the year ended December 31, 2019 were as follows:

	<u>OPEB Liability</u>
Balance at December 31, 2018	\$ 13,297,158
Changes for the year:	
Service cost	976,634
Interest	463,583
Differences between expected and actual experience	(1,823,758)
Changes of assumptions	(289,943)
Benefits paid	<u>(536,537)</u>
Balances at December 31, 2019	<u>\$ 12,087,137</u>

*Sensitivity of the Total OPEB Liability to Changes in the Discount Rate.* The following represents the total OPEB liability calculated using the stated discount rate, as well as what the total OPEB liability would be if it was calculated using a discount rate that is one-percentage-point lower or one-percentage-point higher than the current rate:

<u>1% Decrease (2.71%)</u>	<u>Current Discount Rate (3.71%)</u>	<u>1% Increase (4.71%)</u>
<u>\$ 12,992,387</u>	<u>\$ 12,087,137</u>	<u>\$ 11,262,284</u>

*Sensitivity of the Total OPEB Liability to Changes in the Medical Trend Rate.* The following presents the total OPEB liability calculated using the stated medical trend assumption, as well as what the total OPEB liability would be if it was calculated using a medical trend rate that is one-percentage-point lower or one-percentage-point higher than the current rate:

	<u>1% Decrease</u>	<u>Current</u>	<u>1% Increase</u>
Initial rate	5.50%	6.50%	7.50%
Ultimate rate	3.00%	4.00%	5.00%
	<u>\$ 11,151,782</u>	<u>\$ 12,087,137</u>	<u>\$ 13,178,594</u>

*OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEBs.* For the year ended December 31, 2019, the Authority recognized OPEB expense

# ALLEGHENY COUNTY SANITARY AUTHORITY

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of \$1,276,498. Cash payments into the plan are included in fringe benefits on the statement of revenues, expenses, and changes in net position and any remaining excess (deficiency) is reported as OPEB expense, net.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 1,643,188
Changes in assumptions or other inputs	350,799	261,236
Subtotal, to be recognized in future OPEB expense	350,799	1,904,424
Employer payments for OPEB subsequent to 12/31/2017 measurement date		
12/31/2018 fiscal year end (expected claims)	502,437	-
<b>Total</b>	<b>\$ 853,236</b>	<b>\$ 1,904,424</b>

At December 31, 2019, the Authority reported deferred outflows of resources related to OPEBs of \$350,799 due to changes of which assumptions and other inputs will be recognized in OPEB expense as follows:

Year Ending December 31	Deferred Outflows
2020	\$ 45,558
2021	45,558
2022	45,558
2023	45,558
2024	45,558
Thereafter	123,009
	<b>\$ 350,799</b>

## 9. Contingencies

The Authority is exposed to various risks of loss related to torts; alleged negligence; acts of discrimination; breach of contract; disagreements arising from the interpretation of laws or regulations; theft of, damage to and destruction of assets; errors and omissions; injuries to employees and natural disasters, for which the Authority carries commercial insurance. While some of these claims may be for substantial amounts, they are not unusual in the

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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

### **10. Environmental Permit Requirements**

The Authority is currently engaged in a major capital program to provide additional treatment capacity as required by State and Federal Law. This program is the first phase of a multi-phased program designed to reduce or eliminate wet-weather discharges from the Authority's conveyance and treatment system. As required by the Clean Water Act, the Authority concluded negotiations with the U.S. Environmental Protection Agency, Pennsylvania Department of Environmental Protection, and the Allegheny County Health Department (collectively the Agencies) in May of 2007. A Consent Decree resulting from these negotiations was entered by the United States District Court for the Western District of Pennsylvania on January 23, 2008. The Consent Decree required the Authority to further develop, refine and submit a Long Term Wet Weather Control Plan (Plan) to the Agencies by January 30, 2013. The EPA's CSO Policy specifies that compliance schedules for Wet Weather Control Plans for permittees, such as ALCOSAN, under a phase II NPDES permit be placed in a judicial order. In 2014, the Agencies and ALCOSAN started to negotiate the schedules and requirements for the development and implementation of the water-quality based Wet Weather Plan and associated tasks in a modified Consent Decree. Those negotiations ended in 2018, and on September 19, 2019, a Notice of Lodging of an Amended Consent Decree was published in the Federal Register for a sixty-day public comment period. The modified Consent Decree afforded a longer timetable, through the year 2036 and allows ALCOSAN and our customer municipalities to use the best of evolving technology to meet the terms of the consent decree. The public comment period ended on December 2, 2019, currently, the Agencies are reviewing and responding to public comments.

The Wet Weather Plan, as approved in the modified Consent Decree, includes provisions for significant capital improvements to the Authority's conveyance and treatment system, to capture and treat a defined flow from its customer municipalities, and to demonstrate compliance with applicable receiving stream water quality standards.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## NOTES TO FINANCIAL STATEMENTS

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### **11. Clean Water Assistance Fund**

In January 2017, the Authority created the Clean Water Assistance Fund to help families pay their sewage treatment bills. This program serves low-income residential customers in the 83 municipalities that the Authority serves. It is administered by Dollar Energy. The Authority initially contributed approximately \$1 million to establish this fund. During 2019 and 2018, the fund paid \$180,000 and \$144,000, respectively to approved applicants. To date, the Clean Water Assistance Fund has helped over 3,300 customers.

### **12. Green Revitalization of Our Waterways**

The Authority created the Green Revitalization of Our Waterways (GROW) program in June 2017. The GROW program allows for any municipality or municipal sewer authority within the Authority's service area to apply for grants that may be used to install green storm water reduction technology, remove streams from the sewer system, reduce the amount of water seeping in through groundwater, or to separate out storm sewers. As part of the grant agreement, awardees are required to operate and maintain the project for at least 20 years. As of December 31, 2019, 104 grants have been approved. Payments made as of the end of 2019 total \$5,038,136, of which \$2,189,926 is included in depreciable assets and the remainder is included in construction in progress. As of December 31, 2019, the Authority has committed to \$23,623,646 in grants that will be drawn upon in future years.

# ALLEGHENY COUNTY SANITARY AUTHORITY

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### 13. Total Debt Service Schedule

	Series of 2010	Series of 2013	Series of 2015	Series of 2016	Series of 2018	Combined Debt Service	Annual Debt Service
June 1, 2020	2,774,112	1,612,056	6,004,813	2,097,100	3,524,478	16,012,559	
December 1, 2020	2,591,187	1,612,056	33,459,813	2,097,100	3,524,478	43,284,634	59,297,193
June 1, 2021	2,781,187	1,612,056	5,341,638	2,097,100	3,524,478	15,356,459	
December 1, 2021	2,586,437	1,612,056	34,126,638	2,097,100	3,524,478	43,946,709	59,303,168
June 1, 2022	2,791,437	1,612,056	4,624,813	2,097,100	3,524,478	14,649,884	
December 1, 2022	2,490,312	1,612,056	34,834,813	2,097,100	3,524,478	44,649,759	59,299,643
June 1, 2023	2,806,312	1,612,056	3,872,813	2,097,100	3,524,478	13,912,759	
December 1, 2023	2,575,687	1,612,056	35,592,813	2,097,100	3,524,478	45,402,134	59,314,893
June 1, 2024	5,980,687	1,612,056	3,090,213	2,097,100	3,769,478	16,549,534	
December 1, 2024	2,490,563	7,112,056	17,820,213	8,812,100	3,518,353	39,753,285	56,302,819
June 1, 2025	6,030,562	1,489,893	2,735,150	1,929,225	3,958,353	16,143,183	
December 1, 2025	2,402,062	8,989,894	12,540,150	10,719,225	3,507,353	38,158,684	54,301,867
June 1, 2026	15,257,063	1,312,018	2,509,203	1,709,475	7,317,353	28,105,112	
December 1, 2026	2,080,687	8,812,018	4,649,203	1,854,475	3,412,103	20,808,486	48,913,598
June 1, 2027	5,805,688	1,124,519	2,478,441	1,706,575	7,417,103	18,532,326	
December 1, 2027	1,987,563	8,624,518	13,263,443	2,181,575	3,311,978	29,369,077	47,901,403
June 1, 2028	5,907,563	938,518	2,208,816	1,697,075	7,521,978	18,273,950	
December 1, 2028	1,889,563	6,438,518	13,528,816	2,192,075	3,206,728	27,255,700	45,529,650
June 1, 2029	6,004,563	807,319	1,962,665	1,687,175	7,631,728	18,093,450	
December 1, 2029	1,786,688	3,307,319	13,777,666	2,202,175	3,096,103	24,169,951	42,263,401
June 1, 2030	6,116,688	754,819	1,667,290	1,676,875	7,746,103	17,961,775	
December 1, 2030	1,678,438	754,819	14,072,290	2,206,875	2,979,853	21,692,275	39,654,050
June 1, 2031	4,238,438	754,819	1,357,165	1,666,275	7,824,853	15,841,550	
December 1, 2031	1,622,438	754,819	3,952,165	12,651,275	2,901,122	21,881,819	37,723,369
June 1, 2032	4,297,438	754,819	1,313,374	1,446,575	7,951,122	15,763,328	
December 1, 2032	1,563,922	754,819	3,993,375	12,876,575	2,774,872	21,963,563	37,726,891
June 1, 2033	4,353,922	754,819	1,246,375	1,217,975	8,039,872	15,612,963	
December 1, 2033	1,502,891	754,819	4,061,374	13,107,975	2,686,025	22,113,084	37,726,047
June 1, 2034	4,417,891	754,819	1,175,999	980,175	8,151,025	15,479,909	
December 1, 2034	1,439,125	754,818	4,131,000	13,340,175	2,576,725	22,241,843	37,721,752
June 1, 2035	4,499,125	754,819	1,102,125	732,975	8,266,725	15,355,769	
December 1, 2035	1,362,625	754,819	4,207,125	13,587,975	2,462,924	22,375,468	37,731,237
June 1, 2036	4,582,625	754,819	1,024,500	475,875	8,382,925	15,220,744	
December 1, 2036	1,282,125	754,819	4,284,500	13,840,875	2,344,525	22,506,844	37,727,588
June 1, 2037	4,662,125	754,819	943,000	208,575	8,509,525	15,078,044	
December 1, 2037	1,197,625	754,819	4,363,000	14,113,575	2,221,224	22,650,243	37,728,287
June 1, 2038	16,372,624	754,819	857,500	-	8,636,225	26,621,168	
December 1, 2038	818,250	754,819	4,447,500	-	2,092,925	8,113,494	34,734,662
June 1, 2039	16,773,250	754,819	767,750	-	8,802,925	27,098,744	
December 1, 2039	419,375	754,819	4,537,750	-	1,925,175	7,637,119	34,735,863
June 1, 2040	17,194,375	754,819	673,500	-	8,980,175	27,602,869	
December 1, 2040	-	754,819	4,633,500	-	1,748,800	7,137,119	34,739,988
June 1, 2041	-	754,819	574,500	-	9,163,800	10,493,119	
December 1, 2041	-	9,789,819	4,734,500	-	1,563,425	16,087,744	26,580,863
June 1, 2042	-	517,650	470,500	-	9,358,426	10,346,576	
December 1, 2042	-	6,897,650	4,835,498	-	1,368,550	13,101,698	23,448,274
June 1, 2043	-	350,175	361,375	-	9,563,550	10,275,100	
December 1, 2043	-	6,855,175	4,946,375	-	1,163,675	12,965,225	23,240,325
June 1, 2044	-	179,419	246,750	-	9,778,675	10,204,844	
December 1, 2044	-	7,014,419	5,061,750	-	948,300	13,024,469	23,229,313
June 1, 2045	-	-	126,375	-	11,228,300	11,354,675	
December 1, 2045	-	-	5,181,375	-	691,300	5,872,675	17,227,350
June 1, 2046	-	-	-	-	11,756,300	11,756,300	
December 1, 2046	-	-	-	-	470,000	470,000	12,226,300
June 1, 2047	-	-	-	-	11,985,000	11,985,000	
December 1, 2047	-	-	-	-	239,700	239,700	12,224,700
June 1, 2048	-	-	-	-	12,224,703	12,224,703	
December 1, 2048	-	-	-	-	-	-	12,224,703
	<u>\$ 179,506,238</u>	<u>\$ 112,430,237</u>	<u>\$ 343,773,288</u>	<u>\$ 159,695,650</u>	<u>\$ 295,373,784</u>	<u>\$ 1,090,779,197</u>	<u>\$ 1,090,779,197</u>

**REQUIRED SUPPLEMENTARY  
INFORMATION**

# ALLEGHENY COUNTY SANITARY AUTHORITY

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

YEARS ENDED DECEMBER 31,

	2019	2018	2017	2016	2015
<b>Total Pension Liability:</b>					
Service cost	\$ 1,826,493	\$ 1,668,851	\$ 1,420,751	\$ 1,193,822	\$ 1,012,344
Interest	3,650,643	3,420,033	3,135,922	2,864,194	2,597,036
Differences between expected and actual experience	832,893	(70,800)	816,498	1,043,646	163,825
Changes of benefit terms	-	-	228,011	-	-
Changes of assumptions	1,093,916	-	1,342,644	-	1,178,962
Benefit payments, including refunds of member contributions	(2,112,745)	(1,807,432)	(1,757,159)	(1,591,493)	(1,495,819)
<b>Net Changes in Total Pension Liability</b>	5,291,200	3,210,652	5,186,667	3,510,169	3,456,348
<b>Total Pension Liability - Beginning</b>	50,021,282	46,810,630	41,623,963	38,113,794	34,657,446
<b>Total Pension Liability - Ending (a)</b>	<u>\$ 55,312,482</u>	<u>\$ 50,021,282</u>	<u>\$ 46,810,630</u>	<u>\$ 41,623,963</u>	<u>\$ 38,113,794</u>
<b>Plan Fiduciary Net Position:</b>					
Plan member contributions	\$ 276,848	\$ 266,378	\$ 242,438	\$ 215,651	\$ 217,014
Employer actuarially recommended contributions	2,516,460	1,916,633	1,795,051	1,642,817	1,647,664
Net investment income	(1,796,686)	5,367,534	2,427,121	(64,985)	3,062,959
Benefit payments, including refunds of member contributions	(2,112,745)	(1,807,432)	(1,757,159)	(1,591,493)	(1,495,819)
<b>Net Change in Plan Fiduciary Net Position</b>	(1,116,123)	5,743,113	2,707,451	201,990	3,431,818
<b>Plan Fiduciary Net Position - Beginning</b>	43,899,410	38,156,297	35,448,846	35,246,856	31,815,038
<b>Plan Fiduciary Net Position - Ending (b)</b>	<u>\$ 42,783,287</u>	<u>\$ 43,899,410</u>	<u>\$ 38,156,297</u>	<u>\$ 35,448,846</u>	<u>\$ 35,246,856</u>
<b>Net Pension Liability (Asset) - Ending (a-b)</b>	<u>\$ 12,529,195</u>	<u>\$ 6,121,872</u>	<u>\$ 8,654,333</u>	<u>\$ 6,175,117</u>	<u>\$ 2,866,938</u>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<u>77.35%</u>	<u>87.76%</u>	<u>81.51%</u>	<u>85.16%</u>	<u>92.48%</u>
<b>Covered Payroll</b>	<u>\$ 10,179,102</u>	<u>\$ 9,342,295</u>	<u>\$ 8,594,987</u>	<u>\$ 7,340,502</u>	<u>\$ 6,455,960</u>
<b>Net Pension Liability as a Percentage of Covered Payroll</b>	123.09%	65.53%	100.69%	84.12%	44.41%

# ALLEGHENY COUNTY SANITARY AUTHORITY

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

YEARS ENDED DECEMBER 31,

	2019	2018	2017	2016	2015
<b>Total Pension Liability:</b>					
Service cost	\$ 3,140,218	\$ 2,944,731	\$ 2,616,615	\$ 2,476,956	\$ 2,293,999
Interest	8,965,814	8,525,299	8,080,735	7,634,199	7,030,443
Differences between expected and actual experience	(1,116,208)	(238,155)	(179,689)	389,969	(415,816)
Changes of benefit terms	-	-	603,344	-	-
Changes of assumptions	6,285,011	-	3,411,383	-	3,319,486
Benefit payments, including refunds of member contributions	(5,526,297)	(5,052,414)	(4,763,085)	(4,509,841)	(4,067,193)
<b>Net Changes in Total Pension Liability</b>	11,748,538	6,179,461	9,769,303	5,991,283	8,160,919
<b>Total Pension Liability - Beginning</b>	124,378,389	118,198,928	108,429,625	102,438,342	94,277,423
<b>Total Pension Liability - Ending (a)</b>	<u>\$ 136,126,927</u>	<u>\$ 124,378,389</u>	<u>\$ 118,198,928</u>	<u>\$ 108,429,625</u>	<u>\$ 102,438,342</u>
<b>Plan Fiduciary Net Position:</b>					
Plan member contributions	\$ 230,428	\$ 219,633	\$ 205,330	\$ 194,364	\$ 179,401
Employer actuarially recommended contributions	3,085,110	3,059,402	3,307,866	3,170,502	3,124,830
Net investment income	(4,901,833)	18,425,789	7,341,987	(1,652,268)	12,699,402
Benefit payments, including refunds of member contributions	(5,526,297)	(5,052,414)	(4,763,085)	(4,509,841)	(4,067,193)
<b>Net Change in Plan Fiduciary Net Position</b>	(7,112,592)	16,652,410	6,092,098	(2,797,243)	11,936,440
<b>Plan Fiduciary Net Position - Beginning</b>	127,083,966	110,431,556	104,339,458	107,136,701	95,200,261
<b>Plan Fiduciary Net Position - Ending (b)</b>	<u>\$ 119,971,374</u>	<u>\$ 127,083,966</u>	<u>\$ 110,431,556</u>	<u>\$ 104,339,458</u>	<u>\$ 107,136,701</u>
<b>Net Pension Liability (Asset) - Ending (a-b)</b>	<u>\$ 16,155,553</u>	<u>\$ (2,705,577)</u>	<u>\$ 7,767,372</u>	<u>\$ 4,090,167</u>	<u>\$ (4,698,359)</u>
<b>Plan Fiduciary Net Position as a Percentage of the Total Pension Liability</b>	<u>88.13%</u>	<u>102.18%</u>	<u>93.43%</u>	<u>96.23%</u>	<u>104.59%</u>
<b>Covered Payroll</b>	<u>\$ 20,346,885</u>	<u>\$ 19,156,669</u>	<u>\$ 18,107,692</u>	<u>\$ 17,147,336</u>	<u>\$ 16,613,080</u>
<b>Net Pension Liability (Asset) as a Percentage of Covered Payroll</b>	79.40%	-14.12%	42.90%	23.85%	-28.28%

## ALLEGHENY COUNTY SANITARY AUTHORITY

### SCHEDULE OF AUTHORITY'S CONTRIBUTIONS AND INVESTMENT RETURNS

YEARS ENDED DECEMBER 31,

	2019	2018	2017	2016	2015
Actuarially determined contribution:					
Management	\$ 2,376,191	\$ 2,516,461	\$ 1,916,633	\$ 1,795,051	\$ 1,642,817
Union	3,252,204	3,085,109	3,059,402	3,307,866	3,170,502
	<u>5,628,395</u>	<u>5,601,570</u>	<u>4,976,035</u>	<u>5,102,917</u>	<u>4,813,319</u>
Contributions in relation to the actuarially determined contribution:					
Management	2,376,191	2,516,461	1,916,633	1,795,051	1,642,817
Union	3,252,204	3,085,109	3,059,402	3,307,866	3,170,502
	<u>5,628,395</u>	<u>5,601,570</u>	<u>4,976,035</u>	<u>5,102,917</u>	<u>4,813,319</u>
Contribution deficiency (excess)	<u>\$ -</u>				
Covered payroll:					
Management	\$ 10,732,570	\$ 10,179,102	\$ 9,342,295	\$ 8,594,987	\$ 7,340,502
Union	21,089,748	20,346,885	19,156,669	18,107,692	17,147,336
	<u>\$ 31,822,318</u>	<u>\$ 30,525,987</u>	<u>\$ 28,498,964</u>	<u>\$ 26,702,679</u>	<u>\$ 24,487,838</u>
Contributions as a percentage of covered payroll	17.69%	18.35%	17.46%	19.11%	19.66%
	2014	2013	2012	2011	2010
Actuarially determined contribution:					
Management	\$ 1,647,664	\$ 1,606,029	\$ 1,529,224	\$ 1,358,351	\$ 1,328,190
Union	3,124,830	2,260,312	2,199,113	1,804,689	1,765,668
	<u>4,772,494</u>	<u>3,866,341</u>	<u>3,728,337</u>	<u>3,163,040</u>	<u>3,093,858</u>
Contributions in relation to the actuarially determined contribution:					
Management	1,647,664	1,606,104	1,529,224	1,358,400	1,328,190
Union	3,124,830	2,260,313	2,199,952	1,804,700	1,765,668
	<u>4,772,494</u>	<u>3,866,417</u>	<u>3,729,176</u>	<u>3,163,100</u>	<u>3,093,858</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ (76)</u>	<u>\$ (839)</u>	<u>\$ (60)</u>	<u>\$ -</u>
Covered payroll:					
Management	\$ 6,455,960	\$ 7,066,389	\$ 6,957,730	\$ 6,554,237	\$ 6,198,835
Union	16,613,080	16,193,768	15,871,099	15,750,647	15,233,174
	<u>\$ 23,069,040</u>	<u>\$ 23,260,157</u>	<u>\$ 22,828,829</u>	<u>\$ 22,304,884</u>	<u>\$ 21,432,009</u>
Contributions as a percentage of covered payroll	20.69%	16.62%	16.33%	14.18%	14.44%

## ALLEGHENY COUNTY SANITARY AUTHORITY

### NOTES TO REQUIRED SUPPLEMENTARY PENSION SCHEDULES

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

Methods and assumptions used to determine the contribution rates:

Actuarial cost method	Entry Age Normal - Union Plan Entry Age Normal - Management Plan									
Amortization method	Level-dollar monthly payments - Union Plan Level-dollar monthly payments - Management Plan									
Remaining amortization period	17 years            Union Plan 15 years            Management Plan									
Asset valuation method	Smoothed market value (without phase-in) - Union Plan Smoothed market value (with phase-in) - Management Plan									
Years ended December 31,										
Inflation	<table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center; border-bottom: 1px solid black;">2019</th> <th style="text-align: center; border-bottom: 1px solid black;">2018</th> <th></th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2.30%</td> <td style="text-align: center;">2.50%</td> <td>Union Plan</td> </tr> <tr> <td style="text-align: center;">2.30%</td> <td style="text-align: center;">2.50%</td> <td>Management Plan</td> </tr> </tbody> </table>	2019	2018		2.30%	2.50%	Union Plan	2.30%	2.50%	Management Plan
2019	2018									
2.30%	2.50%	Union Plan								
2.30%	2.50%	Management Plan								
Salary increases	4.00%            4.50%    Union Plan 4.00%            4.50%    Management Plan									
Investment rate of return (gross return assumption)	7.25%            7.50%    Union Plan 7.25%            7.50%    Management Plan									
Mortality - Union Plan	<p>Base mortality tables are applied to participant categories as follows:</p> <ul style="list-style-type: none"> <li>Active participants and terminated participants with deferred benefits: PubG-2010(A) Employee Table</li> <li>Non-disabled participants in payment status: PubG-2010(A) Retiree Table</li> <li>Disabled participants: PubNS-2010 Disabled Retiree Table</li> <li>Surviving beneficiaries: PubCS-2010(A) Contingent Survivor Table</li> </ul> <p>For the January 1, 2019 valuation, fully-generational mortality improvement for all participant categories is projected under Scale MP-2018. The MP scale is updated annually by the Society of Actuaries. Annual updates to the MP scale will be applied to each future actuarial valuation. The MP scale update will be treated as an actuarial experience gain or loss, rather than as an assumption change.</p>									
Mortality - Management Plan	<p>Base mortality tables are applied to participant categories as follows:</p> <ul style="list-style-type: none"> <li>Active participants and terminated participants with deferred benefits: PubG-2010(A) Employee Table</li> <li>Non-disabled participants in payment status: PubG-2010(A) Retiree Table</li> <li>Disabled participants: PubNS-2010 Disabled Retiree Table</li> <li>Surviving beneficiaries: PubCS-2010(A) Contingent Survivor Table</li> </ul> <p>For the January 1, 2019 valuation, fully-generational mortality improvement for all participant categories is projected under Scale MP-2018. The MP scale is updated annually by the Society of Actuaries. Annual updates to the MP scale will be applied to each future actuarial valuation. The MP scale update will be treated as an actuarial experience gain or loss, rather than as an assumption change.</p>									

Note: the mortality improvement assumptions were updated as of the December 31, 2006, 2010, 2012, 2014, 2015, 2016, 2019 valuations.

# ALLEGHENY COUNTY SANITARY AUTHORITY

## SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS

YEAR ENDED DECEMBER 31,  
LAST TEN YEARS\*

	2019	2018
<b>Total OPEB Liability:</b>		
Service cost	\$ 976,634	\$ 798,043
Interest	463,583	482,108
Differences between expected and actual experience	(1,823,758)	-
Changes of benefit terms	-	-
Changes of assumptions	(289,943)	441,915
Benefit payments, including refunds of member contributions	(536,537)	(561,220)
	(1,210,021)	1,160,846
<b>Net Changes in Total OPEB Liability</b>		
	(1,210,021)	1,160,846
<b>Total OPEB Liability - Beginning</b>	13,297,158	12,136,312
<b>Total OPEB Liability - Ending (a)</b>	\$ 12,087,137	\$ 13,297,158
<b>Covered Payroll</b>	\$ 30,525,987	\$ 28,498,964
<b>Net OPEB Liability as a Percentage of Covered Payroll</b>	39.60%	46.66%

\* Until a full 10-year trend is compiled, the required information for the Plan is presented for as many years as are available.

## **SUPPLEMENTARY INFORMATION**

# ALLEGHENY COUNTY SANITARY AUTHORITY

## SCHEDULE OF INVESTMENTS AND OTHER ASSETS

YEAR ENDED DECEMBER 31, 2019

	Cash and Cash Equivalents	Investments	Accrued Interest Receivable	Total
<b>Current Account:</b>				
Revenue Fund	<u>\$ 175,476,686</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 175,476,686</u>
<b>Special Accounts:</b>				
Capital Facilities Fund	78,136,787	-	-	78,136,787
Construction Fund 2013	-	-	-	-
Construction Fund 2015	-	-	-	-
Construction Fund 2018	<u>71,998,915</u>	<u>84,963,478</u>	<u>375,444</u>	<u>157,337,837</u>
	<u>150,135,702</u>	<u>84,963,478</u>	<u>375,444</u>	<u>235,474,624</u>
<b>Debt Service Accounts:</b>				
Debt Service Fund	<u>15,202</u>	<u>-</u>	<u>-</u>	<u>15,202</u>
Total	<u>\$ 325,627,590</u>	<u>\$ 84,963,478</u>	<u>\$ 375,444</u>	<u>\$ 410,966,512</u>

# ALLEGHENY COUNTY SANITARY AUTHORITY

## SCHEDULE OF INVESTMENTS AND OTHER ASSETS

YEAR ENDED DECEMBER 31, 2018

	<u>Cash and Cash Equivalents</u>	<u>Investments</u>	<u>Accrued Interest Receivable</u>	<u>Total</u>
<b><u>Current Account:</u></b>				
Revenue Fund	\$ 142,482,220	\$ -	\$ -	\$ 142,482,220
<b><u>Special Accounts:</u></b>				
Capital Facilities Fund	69,547,819	-	-	69,547,819
Construction Fund 2015	12,919,589	-	-	12,919,589
Construction Fund 2018	954,978	167,782,528	622,842	169,360,348
	<u>83,422,386</u>	<u>167,782,528</u>	<u>622,842</u>	<u>251,827,756</u>
<b><u>Debt Service Accounts:</u></b>				
Debt Service Fund	23,334	-	-	23,334
Total	<u>\$ 225,927,940</u>	<u>\$ 167,782,528</u>	<u>\$ 622,842</u>	<u>\$ 394,333,310</u>