West Mifflin Sanitary Sewer Municipal Authority

Financial Statements and Required Supplementary Information and Supplementary Information

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



YEARS ENDED DECEMBER 31, 2019 AND 2018

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Independent Auditor's Report

Board of Directors
West Mifflin Sanitary
Sewer Municipal Authority

We have audited the accompanying financial statements of the business-type activities and aggregate remaining fund information of the West Mifflin Sanitary Sewer Municipal Authority (Authority) as of and for the years ended December

31, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express 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.

Board of Directors West Mifflin Sanitary Sewer Municipal Authority Independent Auditor's Report Page 2

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the 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.

Change in Accounting Principle

As discussed 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. Our opinions are not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and pension and OPEB information on pages i through viii and 34 through 39, respectively, be presented to supplement the basic financial statements. Such information, although not part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's financial statements as a whole. The supplementary

Board of Directors West Mifflin Sanitary Sewer Municipal Authority Independent Auditor's Report Page 3

schedule listed in the table of contents is presented for purposes of additional analysis and is not a required part of the financial statements. This schedule is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

Maher Duessel

Pittsburgh, Pennsylvania June 17, 2020

MANAGEMENT'S DISCUSSION AND ANALYSIS

AUDIT ASSURANCE

The unmodified opinion of our independent auditors, Maher Duessel, Certified Public Accountants, is included in this report. The following section, Management's Discussion and Analysis, has been prepared so that the West Mifflin Sanitary Sewer Municipal Authority (Authority) is in compliance with Statement No. 34 of the Governmental Accounting Standards Board (GASB).

FINANCIAL HIGHLIGHTS

The following are key financial highlights during 2019:

- In 2019, the flow billed decreased by 5,315,354 gallons. This decrease can be attributed to a decrease in customer's usage from the residential and commercial users in our service area. The decreased usage can also be associated with changes in consumption period reports by Pennsylvania American Water Company.
- In 2019, the Authority treated 840,478,000 gallons for 8,709 customers at its two wastewater treatment plants. Of the gallons treated, only 496,373,451 gallons were billed. In 2018, the Authority treated 1,168,137,000 gallons for 8,872 customers at its two wastewater treatment plants. Of the gallons treated, only 501,688,805 gallons were billed. The difference between what is treated versus that which is billed is attributed to direct inflow of storm water from groundwater infiltration into the system from old and deteriorating sewer lines and private laterals throughout the service area.
- During 2019, the Authority paid \$1,225,000 in principal on its outstanding Sewer Revenue Bonds, compared with principal payments made in 2018 of \$1,195,000.
- The Authority had an increase in the cost of operations (less depreciation and bad debt expense) in 2019 by \$117,347 or 2.59% when compared to 2018.
- Operating revenues decreased by \$173,453 or 2.44% in 2019 when compared to 2018.

- The Authority essentially completed and placed into service approximately \$2,018,000 in sewer system and treatment plant improvements in 2019.
- 2019 marks the fifth year that the Authority has had to comply with the Governmental Accounting Standards Board (GASB) Statement No. 68. The standard pertains to the treatment of the net pension liability. The net pension liability is the difference between the total pension liability and the plan assets at fair value. The Authority's Statement of Net Position now contains a non-current liability of \$418,647 at December 31, 2019, an increase of \$40,913, or 10.83% when compared to 2018.

REQUIRED FINANCIAL STATEMENTS

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

The Statement of Net Position includes all of the Authority's non-fiduciary assets, deferred outflows of resources, liabilities, and deferred inflows of resources with the difference reported as net position. Over time, increases and decreases to net position are one indicator of whether the financial position of the Authority is improving or deteriorating. It also provides the basis for computing rate of return, evaluating the capital structure of the Authority, and assessing the liquidity and financial flexibility of the Authority.

All of the current year's non-fiduciary 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. The Authority's rate studies are updated periodically to reflect both the operating and long-term capital requirements of the Authority. The most recent rate evaluation was performed in mid-2010. The Authority's Board of Directors (Board) increased sewer rates in October 2015 that went into effect beginning with January 2017 usage.

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

As a result of the implementation of GASB 84, "Fiduciary Activities," the Statements of Fiduciary Net Position and Statements of Changes in Fiduciary Net Position are presented to report on the Authority's pension trust fund.

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 Authority was incorporated on May 9, 1996 under the Pennsylvania Municipality Authorities Act of 1945. Plant operations began on September 1, 1996. The Authority serves as the exclusive agency for the collection, transportation, and treatment of wastewater for the Borough of West Mifflin. The Authority charges users for processing of wastewater at a base rate of \$17.00 per residential and \$25.00 per commercial plus a graduated rate for usage by the hundred gallons. Additional charges are levied for excess Biochemical Oxygen Demand (BOD) and suspended solids (SS) from industrial waste discharges into the system in the portion of the sewer system using ALCOSAN for treatment.

The Thompson Run Treatment Plant and Authority Offices are located at 1302 Lower Bull Run Road, West Mifflin, PA. The Authority also operates an additional treatment facility at 2439 New England Hollow Road. The Authority operates and maintains over 100 miles of interceptor and collector sewers, and 14 pumping or lift stations throughout the service area.

A small portion of the sewer system is connected to the Jefferson Hills sewage system that is treated at the Clairton Municipal Authority Treatment Plant. In 2019, the number of customers in this service area is 37. The Authority is billed by Jefferson Hills Borough for these customers on a quarterly payment schedule for the wastewater treatment.

The Authority's service area covers over 14 square miles in Allegheny County.

The Authority's Articles of Incorporation (Articles), provide that the Authority's Board shall consist of five (5) members serving staggered five-year terms. Pursuant to the Articles, all members of the Board are appointed by West Mifflin Borough Council. The day-to-day operation of the Authority is the responsibility of the General Manager and Assistant General Manager, who are employed by the Board to carry out its policies.

FINANCIAL ANALYSIS

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

	Condensed Statements of Net Position								
		2019	2018		\$ Change		% Change		
Assets and Deferred Outflows of Resources									
Assets:									
Current assets	\$	4,035,334	\$	4,039,656	\$	(4,322)	0%		
Restricted assets		2,634,003		2,974,004		(340,001)	-11%		
Capital assets, net		21,837,812		22,547,912		(710,100)	-3%		
Other assets		212,019		231,970		(19,951)	-9%		
Total Assets		28,719,168		29,793,542		(1,074,374)			
Deferred Outflows of Resources		1,982,058		1,950,204		31,854	2%		
Total Assets and Deferred Outflows of Resources	\$	30,701,226	\$	31,743,746	\$	(1,042,520)			
Liabilities, Deferred Inflows of Resources, and Net Position									
Liabilities:									
Current liabilities	\$	2,199,997	\$	2,094,317	\$	105,680	5%		
Long-term liabilities		27,386,901		28,718,192		(1,331,291)	-5%		
Total Liabilities		29,586,898		30,812,509		(1,225,611)			
Deferred Inflows of Resources		359,600		295,962		63,638	22%		
Net Position:									
Net investment in capital assets		(3,887,140)		(3,944,520)		57,380	-1%		
Restricted net position		2,139,631		2,041,411		98,220	5%		
Unrestricted net position		2,502,237		2,538,384		(36,147)	-1%		
Total Net Position		754,728		635,275		119,453			
Total Liabilities, Deferred Inflows of Resources, and Net Position	\$	30,701,226	\$	31,743,746	\$	(1,042,520)			

(Continued)

	Condensed Statements of Net Position								
		2018		2017		\$ Change	% Change		
Assets and Deferred Outlfows of Resources									
Assets:									
Current assets	\$	4,039,656	\$	3,883,274	\$	156,382	4%		
Restricted assets		2,974,004		3,638,140		(664,136)	-18%		
Capital assets, net		22,547,912		22,859,974		(312,062)	-1%		
Other assets		231,970		251,921		(19,951)	-8%		
Total Assets		29,793,542		30,633,309		(839,767)			
Deferred Outflows of Resources		1,950,204		1,887,815		62,389	3%		
Total Assets and Deferred Outflows of Resources	\$	31,743,746	\$	32,521,124	\$	(777,378)			
Liabilities, Deferred Inflows of Resources, and Net Position									
Liabilities:									
Current liabilities	\$	2,094,317	\$	2,068,941	\$	25,376	19		
Long-term liabilities		28,718,192		29,639,985		(921,793)	-3%		
Total Liabilities		30,812,509		31,708,926		(896,417)			
Deferred Inflows of Resources		295,962		272,392		23,570	9%		
Net Position:									
Net investment in capital assets		(3,944,520)		(4,162,459)		217,939	-5%		
Restricted net position		2,041,411		2,065,796		(24,385)	-19		
Unrestricted net position		2,538,384		2,636,469		(98,085)	-49		
Total Net Position		635,275		539,806		95,469			
Total Liabilities, Deferred Inflows of Resources, and Net Position	\$	31,743,746	\$	32,521,124	\$	(777,378)			

(Concluded)

OTHER SELECTED INFORMATION

	2019	2018	Difference
Selected Data:			
Authorized Employees	23	23	0
Actual Employees at year-end	24	23	1
Wastewater Treated (billons of gallons)	0.840478	1.16813	-0.327652
Wastewater Billed (billions of gallons)	0.496373	0.501688	-0.005315
Percentage of Billed/Treated Wastewater	59.06%	42.95%	16.11%
Rates:			
Residential Fee	\$17.00	\$17.00	\$0.00
Commercial Fee	\$25.00	\$25.00	\$0.00
First 2,000 gallons/thousand	\$8.58	\$8.58	\$0.00
next 13,000 gallons/thousand	\$8.58	\$8.58	\$0.00
15,001-100,000 gallons/thousand	\$12.74	\$12.74	\$0.00
over 100,000 gallons/thousand	\$15.00	\$15.00	\$0.00
Average Residential Customer Bill:			
Per year	\$821.76	\$821.76	\$0.00
Per Month	\$68.48	\$68.48	\$0.00
* Based on 6,000 Gallons per month			
	2018	2017	Difference
Selected Data:	22	22	0
Authorized Employees	23	23	0
Actual Employees at year-end	23 1.16813	23 1.09779	0 0.07034
Wastewater Treated (billons of gallons) Wastewater Billed (billions of gallons)	0.501688	0.529786	-0.028098
Percentage of Billed/Treated Wastewater	42.95%	48.26%	-5.31%
Rates:			
Residential Fee	\$17.00	\$17.00	\$0.00
Commercial Fee	\$25.00	\$25.00	\$0.00
First 2,000 gallons/thousand	\$8.58	\$8.58	\$0.00
next 13,000 gallons/thousand	\$8.58	\$8.58	\$0.00
15,001-100,000 gallons/thousand	\$12.74	\$12.74	\$0.00
over 100,000 gallons/thousand	\$15.00	\$15.00	\$0.00
Average Residential Customer Bill:			
Per year	\$821.76	\$821.76	\$0.00
Per Month	\$68.48	\$68.48	\$0.00
* Based on 6,000 Gallons per month			

GENERAL TRENDS AND SIGNIFICANT EVENTS

Proceeds from the Authority's bond issue in 2014, Sewer Revenue Bonds, Refunding Series of 2014 A, will be used for upgrades to the Authority's plants, pump stations, and operating systems. The Authority plans to use these proceeds to upgrade the Authority's treatment process to omit the use of chlorine at both the Thompson Run and New England sewage treatment plants. These upgrades will create savings to the Authority's rate payers and make the community safer. In order to omit chlorine from the treatment process, upgrades will be made to UV system at Thompson Run and a new UV system will be purchased for the New England sewage treatment plant. These upgrades will allow for both the Thompson Run and New England sewage treatment plants to comply with chlorine regulations required by the State and NPDES permitting.

Continued upgrades to pump stations will help eliminate some infiltration issues. Force main pipe will be replaced at some pumping stations and pump and shaft upgrades will be made to make the stations run more efficiently. These changes will allow for utility savings to the Authority, as well as a savings in the treatment.

RESULTS OF OPERATIONS

Operating Revenue

In 2019 and 2018, 100% of operating revenue was derived from customer billing for sewage treatment service. This includes residential, commercial, and industrial customers.

Operating Expenses

Total operating expense, before depreciation and bad debt expense was \$4,651,244 in 2019 vs. \$4,533,897 in 2018. In 2019, operating expenses increased in payroll, benefits, sewer crew expenses, office supplies, fee collection costs, insurance, professional services, and purchased sewer treatments. There were reductions in sewage treatment and utilities.

Total operating expense, before depreciation and bad debt expense was \$4,533,897 in 2018 vs. \$4,477,602 in 2017. In 2018, operating expenses increased in sewage treatment plants, payroll, utilities, sewer crew expenses, and professional services. There were reductions in benefits, office supplies, fee collection costs, insurance, and purchased sewer treatments.

Non-Operating Revenues and Non-Operating Expenses

Non-operating Revenue (Expense) between 2019 and 2018 remained fairly consistent.

The Authority experienced significant reductions in Non-operating Revenue (Expense) between 2018 and 2017 primarily due to a \$28,609 decrease in interest expense on bonds and notes payable.

<u>Depreciation</u>

The Authority had depreciation expense of \$1,282,326 and \$1,201,970 on plants and equipment in 2019 and 2018, respectively. In 2019 and 2018, respectively, the Authority completed approximately \$2,018,000 and \$424,000 in various capital projects throughout the sewer system and treatment plants.

DEBT

At December 31, 2019, the Authority had \$26,565,000 in bond debt.

In 2019, the Authority was not in compliance with the rate covenant, as its operating surplus was less than 110% of the debt service requirements. A rate increase was scheduled for 2020 to correct this.

At December 31, 2018, the Authority had \$27,790,000 in bond debt.

In 2018, the Authority was in compliance with the rate covenant, as its operating surplus was more than 110% of the debt service requirements.

FINAL COMMENTS

While fiscal year 2019 presented financial challenges, the Board and the Authority staff worked hard to position the Authority for the future. The Authority responded by taking advantage of increasing rates.

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 West Mifflin Sanitary Sewer Municipal Authority's General Manager and Administration at 1302 Lower Bull Run Road, West Mifflin, PA 15122. (412-466-6070).

STATEMENTS OF NET POSITION

DECEMBER 31, 2019 AND 2018

Assets and Deferred Outflows of Res	ources		Liabilities, Deferred Inflows of Resources, and N	et Position	
	2019	2018		2019	2018
Assets:			Liabilities:		
Current assets:			Current liabilities:	_	
Cash and cash equivalents	\$ 2,670,838	\$ 2,864,183	Accounts payable	\$ 376,057	\$ 356,897
Accounts receivable - user fees	1,207,359	1,027,917	Accrued payroll	50,126	43,030
Accounts receivable - nonuser fees	26,149	20,985	Current portion of notes payable	16,253	15,778
Prepaid expenses	120,626	116,217	Current portion of accrued compensated absences	30,290	-
Interest receivable	10,362	10,354	Unearned revenue	23,055	
Total current assets	4,035,334	4,039,656	Total current liabilities	495,781	415,705
Restricted assets:			Current liabilities (payable from restricted assets):		
Construction fund	60,156	478,981	Current portion of bonds payable long-term	1,270,000	1,225,000
Debt service accounts	2,573,847	2,495,023	Bond interest payable	434,216	453,612
Total restricted assets	2,634,003	2,974,004	Total current liabilities (payable from restricted		
			assets)	1,704,216	1,678,612
Capital assets (at cost)	39,917,507	37,899,471			
Less: accumulated depreciation	(18,079,695)	(16,817,320)	Long-term liabilities:		
Construction in progress		1,465,761	Accrued compensated absences	339,946	363,172
			Notes payable	53,264	69,520
Total capital assets, net (at cost)	21,837,812	22,547,912	Bonds payable	25,295,000	26,565,000
			Unamortized bond premium	934,183	998,396
Other assets:			Total OPEB liability	345,861	344,370
Cost of sewer capacity improvements (net of amortization			Net pension liability	418,647	377,734
of \$310,503 and \$290,552 for 2019 and 2018, respectively)	212,019	231,970	Total long-term liabilities	27,386,901	28,718,192
			•		
Total Assets	28,719,168	29,793,542	Total Liabilities	29,586,898	30,812,509
			Deferred Inflows of Resources:	_	
			Deferred inflows of resources for pension	344,432	295,962
			Deferred inflows of resources for OPEB	15,168	
			Total Deferred Inflows of Resources	359,600	295,962
			Net Position:	_	
Deferred Outflows of Resources:			Net investment in capital assets		
Deferred charge on refunding	1,571,573	1,670,311	Restricted net position	(3,887,140)	(3,944,520)
Deferred outflows of resources for pension	388,349	262,783	Unrestricted net position	2,139,631	2,041,411
Deferred outflows of resources for OPEB	22,136	17,110		2,502,237	2,538,384
Total Deferred Outflows of Resources	1,982,058	1,950,204	Total Net Position	754,728	635,275
Total Assets and Deferred Outflows of Resources	\$ 30,701,226	\$ 31,743,746	Total Liabilities, Deferred Inflows of Resources, and Net Position	\$ 30,701,226	\$ 31,743,746

See accompanying notes to financial statements.

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2019 AND 2018

	 2019	2018		
Operating Revenues:				
Sewer rentals	\$ 6,930,359	\$	7,103,812	
Operating Expenses:				
Sewer system operation	3,955,144		3,898,128	
Purchased sewer treatment	696,100		635,769	
Depreciation and amortization	1,282,326		1,201,970	
Bad debt expense	 		1,000	
Total operating expenses	 5,933,570		5,736,867	
Operating Income	 996,789		1,366,945	
Nonoperating Revenues (Expenses):				
Interest income	111,433		101,485	
Other revenue	90,544		90,278	
Interest on sewer revenue bonds and notes payable	(1,071,589)		(1,110,939)	
Amortization of bond premium	(50,491)		(49,595)	
Realized gain (loss) on investments	2,508		(6,925)	
Unrealized gain (loss) on investments	 (3,391)		4,567	
Total nonoperating revenues (expenses)	 (920,986)		(971,129)	
Income (Loss) Before Capital Contribution Revenues	 75,803		395,816	
Capital Contribution Revenues:				
Tap-in fees	 43,650		11,000	
Change in Net Position	119,453		406,816	
Net Position:				
Beginning of year	 635,275		228,459	
End of year	\$ 754,728	\$	635,275	

See accompanying notes to financial statements.

STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2019 AND 2018

		2019		2018
Cash Flows From Operating Activities:				
Cash received from customers	\$	6,773,972	\$	7,213,699
Cash payments for operating expenses		(4,652,047)		(4,612,280)
Net cash provided by (used in) operating activities		2,121,925		2,601,419
Cash Flows From Noncapital Financing Activities:				
Other		134,194		101,278
Net cash provided by (used in) noncapital financing activities		134,194		101,278
Cash Flows From Capital and Related Financing Activities:				
Interest paid on debt		(1,090,985)		(1,124,855)
Interest received on restricted bond funds		111,433		101,485
Capital assets and related purchases		(555,583)		(899,767)
Payment of notes payable		(15,781)		(15,311)
Payment of bond principal		(1,225,000)		(1,195,000)
Net cash provided by (used in) capital and related financing activities		(2,775,916)		(3,133,448)
Cash Flows From Investing Activities:				
Sale of investments		236,662		675,517
Interest earned		89,790		(5,970)
Net cash provided by (used in) investing activities		326,452		669,547
Increase (Decrease) in Cash and Cash Equivalents		(193,345)		238,796
Cash and Cash Equivalents:				
Beginning of year		2,864,183		2,625,387
End of year	\$	2,670,838	\$	2,864,183
Reconciliation of Operating Income to Net Cash				
Provided by (Used in) Operating Activities:				
Operating income	\$	996,789	\$	1,366,945
Adjustments to reconcile operating income to net cash				
provided by (used in) operating activities:				
Depreciation and amortization		1,282,326		1,201,970
Bad debt expense		-		1,000
Accounts receivable		(184,606)		97,520
Prepaid expenses		(4,409)		(9,136)
Deferred outflows of resources related to pension		(125,566)		(144,017)
Deferred outflows of resources related to OPEB		(22,136)		(17,110)
Accounts payable		19,160		3,304
Accrued payroll and withholdings		7,096		5,528
Accrued compensated absences		7,064		28,044
Unearned revenue		23,055		-,
Total OPEB liability		18,601		33,023
Net pension liability		40,913		10,778
Deferred inflows of resources related to pension		48,470		23,570
Deferred inflows of resources related to OPEB		15,168		-
Net cash provided by (used in) operating activities	\$	2,121,925	\$	2,601,419
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See accompanying notes to financial statements.

STATEMENTS OF FIDUCIARY NET POSITION PENSION TRUST FUND

YEARS ENDED DECEMBER 31, 2019 AND 2018

		2019	2018
Assets and Deferred Outflows of Resources	<u>-</u>		
Dividends and interest receivable	\$	1,529	\$ 2,591
Cash and cash equivalents		54,886	71,756
Investments at fair value:			
Mutual funds		1,742,880	1,438,626
Common stocks		1,251,058	945,834
Municipal bonds		-	101,236
Total investments at fair value		2,993,938	2,485,696
Total Assets	\$	3,050,353	\$ 2,560,043
Liabilities and Net Position	_		
Liabilities:			
Benefits payable	\$	-	\$ -
Net Position:	_		
Restricted for pension benefits	<u> </u>	3,050,353	 2,560,043
Total Liabilities and Net Position	\$	3,050,353	\$ 2,560,043

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION PENSION TRUST FUND

YEARS ENDED DECEMBER 31, 2019 AND 2018

	2019	2018		
Additions:		'		
Contributions:				
Employer	\$ 138,334	\$	168,085	
Employee	 7,200		7,340	
Total contributions	 145,534		175,425	
Investment income:				
Net appreciation (depreciation) in fair value				
of investments	500,719		(89,785)	
Investment income	41,874		41,346	
Investment expenses	 (26,592)		(25,053)	
Total investment income	 516,001		(73,492)	
Total additions	 661,535		101,933	
Deductions:				
Benefits	171,225		167,702	
Administrative expense	 		8,900	
Total deductions	 171,225		176,602	
Change in Plan Net Position	490,310		(74,669)	
Net Position:				
Beginning of year	 2,560,043		2,634,712	
End of year	\$ 3,050,353	\$	2,560,043	

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

1. Reporting Entity

The West Mifflin Sanitary Sewer Municipal Authority (Authority) was formed in accordance with the Pennsylvania Municipality Authorities Act of 1945. It commenced operations on August 21, 1996 and purchased the existing sanitary sewer system of the Borough of West Mifflin for the sum of \$800,000. The Authority operates the sewer system that serves approximately 8,300 customers, which comprises the entire Borough of West Mifflin.

2. Summary of Significant Accounting Policies

The accompanying financial statements of the Authority conform to accounting principles generally accepted in the United States of America for governmental enterprise funds and fiduciary funds. Enterprise funds are used to account for operations that are financed and operated in a manner similar to private business enterprises, where the intent is that the costs of providing the service to the general public, including depreciation, are financed or recovered primarily through user charges. Fiduciary funds are used to account for assets that are controlled by the government but for which the government is not a beneficiary.

The following is a summary of the significant accounting policies of the Authority:

Basis of Accounting and Measurement Focus

Basis of accounting refers to when revenues and expenses are recognized. The accompanying financial statements are presented on an accrual basis whereby revenues are recognized when earned, irrespective of when they are billed or collected, and expenses are recognized when incurred. Investments are recorded at fair value. The Authority prepares a budget on the accrual basis at the beginning of each year. The Authority capitalizes eligible net interest costs as part of the cost of constructing various sewer projects when material.

Statements of Cash Flows

For purposes of the statements of cash flows, cash is defined as bank demand deposits and petty cash on hand. The Authority is authorized to invest in U.S. Treasury Bills and time deposits of insured institutions. The Authority considers all investments with a maturity date of three months or less to be cash equivalents.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

Fair Value Measurement

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.

Receivables

In general, no provision is made for uncollectible accounts receivables as these charges are lienable charges to the property served and service can be shut off. Charges that become uncollectible are charged to expense in the year. The Authority charged bad debt expense of \$0 and \$1,000 for 2019 and 2018, respectively.

Unamortized Premiums

Bond premiums are deferred and amortized over the life of the bonds on a straight-line basis.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then. The Authority has three items that qualify for reporting in this category:

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

In conjunction with pension accounting requirements, certain elements are recorded as deferred outflows of resources related to pensions on the statement of net position. These amounts are determined based on the actuarial valuation performed for the plan. Note 6 presents additional information about the pension plan.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

In conjunction with other post-employment benefit (OPEB) accounting requirements, certain elements are recorded as deferred outflows of resources related to OPEB on the statement of net position. These amounts are determined based on the actuarial valuation performed for the plan. Note 7 presents additional information about the OPEB plan.

In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has one item that qualifies for reporting in this category:

In conjunction with pension accounting requirements, certain elements are recorded as a deferred inflow of resources related to pensions on the statement of net position. This amount is determined based on the actuarial valuation performed for the pension plan. Note 6 presents additional information about the pension plan.

In conjunction with other post-employment benefit (OPEB) accounting requirements, certain elements are recorded as deferred inflows of resources related to OPEB on the statement of net position. These amounts are determined based on the actuarial valuation performed for the plan. Note 7 presents additional information about the OPEB plan.

Restricted Assets

The Authority has established certain restricted asset accounts to satisfy the requirements of a bond trust indenture (indenture). In accordance with the terms of the indenture, the Authority is required to periodically set aside certain amounts to assure the availability of adequate monies for servicing the Authority's long-term debt and completing capital additions. These restricted accounts are held by a Trustee.

Capital Assets

Capital assets, which include property, plant, and equipment, are recorded at cost, including capitalized interest. Capital assets are defined by the Authority as assets with an initial, individual cost of more than \$500 and an estimated useful life in excess of one year. Donated capital assets are recorded at estimated acquisition value at the date of donation.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

Depreciation is provided on all capital assets on a straight-line basis over the estimated useful lives. The cost of maintenance and repairs is charged to operations as incurred. Construction in progress will begin to be depreciated when the project is completed.

Depreciation is calculated using the following estimated useful lives:

	Years
Land improvement	10-20
Buildings and improvement	20-40
Vehicles	5-15
Software/computers	5
Office furniture and equipment	5-10
Machinery and equipment	10-20

Sick Leave

Employees of the Authority earn and are entitled to accumulate sick days based on length of service. The Authority has established a liability of \$370,236 and \$363,172 for 2019 and 2018, respectively, for compensated absences that are eligible for payment upon termination.

Net Position

Accounting standards require the classification of net position into three components – net investment in capital assets; restricted; and unrestricted. These classifications are defined as follows:

• Net investment in capital assets – This component of net position consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are also included in this component of net position. If there are significant unspent related debt proceeds or deferred inflows of resources at the end of the reporting period, the portion of the debt or deferred inflows or resources attributable to the unspent amount is not included in the calculation of net investment in capital assets.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

Instead, that portion of the debt or deferred inflow of resources is included in the same net position component (restricted or unrestricted) as the unspent amount.

- Restricted This component of net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally, a liability relates to restricted assets if the asset results from a resource flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted assets. These amounts are restricted for the debt covenants. For the fiduciary fund, these amounts are restricted for pension benefits.
- Unrestricted This component of net position is the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted components of net position.

Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, employer contributions are recognized as a reduction of the net pension liability upon payment into the pension trust. Investments are reported at fair value.

Estimates

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

Adopted Pronouncement

Governmental Accounting Standards Board (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 statement have been adopted and incorporated into these financial statements.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

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

Pending Pronouncements

GASB has issued statements that will become effective in future years, including Statement Nos. 87 (Leases), 89 (Accounting for Interest Cost Incurred before the End of a Construction Period), 91 (Conduit Debt Obligations), and 92 (Omnibus 2020). Management has not yet determined the impact of these statements on the financial statements.

3. Cash and Investments

The Authority is authorized to invest in: obligations of the U.S. Government and government-sponsored agencies and instrumentalities; fully insured or collateralized certificates of deposits; commercial paper of the highest rating; repurchase agreements collateralized by government obligations or securities; highly rated bank promissory notes or investment funds or trusts; and, as to trusteed assets, as otherwise permitted by the trust indenture of 2009. Throughout the years ended December 31, 2019 and 2018, the Authority invested its funds in such authorized investments.

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

Custodial Credit Risk – Custodial credit risk is the risk that in the event of a bank failure, the Authority's deposits may not be returned to it. The Authority does not have a formal deposit policy for custodial credit risk. As of December 31, 2019 and 2018, respectively, \$1,864,288 and \$2,053,605 of the Authority's bank balance of \$2,114,288 and \$2,303,605 was exposed to custodial credit risk. Any exposed amount 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

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

collateral held by an approved custodian in the institution's name. These deposits have a carrying amount of \$2,092,042 and \$2,298,253 as of December 31, 2019 and 2018, respectively, all of which is reported as current assets in the statements of net position.

In addition to the deposits noted above, cash and cash equivalents on the statements of net position also include the following:

- Investments with the Pennsylvania Local Government Investment Trust (PLGIT) of \$577,739 and \$564,897 for 2019 and 2018, respectively. The fair value of the Authority's investments with PLGIT (an external investment pool) is the same as the value of pool shares. All investments in the investment pool that are not SEC-registered are subject to oversight by the Commonwealth of Pennsylvania. The Authority's investments in PLGIT-Class of \$131,974 and \$129,079 for 2019 and 2018, respectively, have no minimum initial investment requirement and have a minimum investment period of one day. The Authority's investments in PLGIT-Prime of \$445,765 and \$435,818 for 2019 and 2018, respectively, have no minimum initial investment requirement, a minimum investment period of one day, and penalty for more than two withdrawals in a calendar month.
- Short-term investments with the external investment pool (INVEST) of \$1,057 and \$1,033 in 2019 and 2018, respectively. The fair value of the Authority's investments in INVEST is the same as the value of the pool shares. All investments in the investment pool that are not SEC-registered are subject to oversight by the Commonwealth of Pennsylvania. The Authority can withdraw funds from the external investment pool without limitations or fees upon adequate notice. Otherwise, breakage fees may be charged.

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

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

			Maturity in Years								
		Fair		ess than		1-5		6-10	N	lore than	
	Ma	rket Value	1 year		Years		Years			10 years	
Money markets	\$	165,467	\$	165,467	\$	-	\$	-	\$	-	
Private debt obligations		657,366		-		-		657,366		-	
Municipal bonds		247,924		-		-		-		247,924	
U.S. agencies		1,563,246				997,365				565,881	
Total	\$:	2,634,003	\$	165,467	\$	997,365	\$	657,366	\$	813,805	

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

			Maturity in Years								
		Fair	L	ess than		1-5		6-10	M	ore than	
	Ma	Market Value		1 year		Years		Years	1	LO years	
Money markets	\$	403,058	\$	403,058	\$	-	\$	-	\$	-	
Private debt obligations		657,366		-		-		657,366		-	
Municipal bonds		72,778		-		-		-		72,778	
U.S. agencies		1,840,802		1,099,676		499,955		_		241,171	
Total	\$	2,974,004	\$ 2	1,502,734	\$	499,955	\$	657,366	\$	313,949	

Investments of \$2,634,003 at December 31, 2019 and \$2,974,004 at December 31, 2018 are included as restricted investments on the statements of net position.

Interest Rate Risk – The Authority does not have a formal investment policy that limits investment maturities as a means of managing exposure to fair value losses arising from increasing rates. Interest rate risk is the risk that changes in the interest rates will adversely affect the fair market value of the Authority's investments.

Credit Risk – The Authority has no formal investment policy that would limit its investment choices based on credit ratings by nationally recognized statistical rating organizations. Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. The Authority's Treasury Instruments Fund #506 money market funds of \$698 were rated Aaam and Institutional Class #1751 money market funds of \$164,768 were rated Aaam. The Authority's US Agency investments of \$1,563,246 all had a Aaa rating. The

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

guarantor of the private debt obligation of \$657,366 is a company with a AAA rating at December 31, 2019.

As of December 31, 2018, the Authority's Treasury Instruments Fund #506 money market funds of \$204 were rated Aaam, Institutional Class #1751 money market funds of \$402,854 were rated Aaam. The Authority's US Agency investments of \$1,840,802 all had a Aaa rating. The guarantor of the private debt obligation of \$657,366 is a company with a AAA rating at December 31, 2018.

Concentration of Credit Risk – Concentrations of credit risk is the risk of loss attributed to the magnitude of a government's investments in a single issuer. The Authority places no limit on the amount it may invest in any one issuer. More than five percent of the Authority's investments are in private debt obligations at December 31, 2019 and 2018. These investments are 34% and 22% of the Authority's total investments at December 31, 2019 and 2018, respectively.

The Authority has the following recurring fair value measurements as of December 31, 2019:

	Level 1		Level 2	Level 3	Total		
Money markets	\$ 165,467	\$	-	\$ -	\$	165,467	
Private debt obligations	-		-	657,366		657,366	
Municipal bonds	-		247,924	-		247,924	
U.S. agencies			1,563,246	 		1,563,246	
	\$ 165,467	\$	1,811,170	\$ 657,366	\$	2,634,003	

The Authority has the following fair value measurements as of December 31, 2018:

	Level 1		Level 2	Level 3	Total		
Money markets	\$ 403,058	\$	-	\$ -	\$	403,058	
Private debt obligations	-		-	657,366		657,366	
Municipal bonds	-		72,778	-		72,778	
U.S. agencies			1,840,802	 		1,840,802	
	\$ 403,058	\$	1,913,580	\$ 657,366	\$	2,974,004	

Money markets classified in Level 1 of the fair value hierarchy at December 31, 2019 and 2018 are valued using prices quoted in active markets for those securities. Municipal bonds

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

and U.S. agencies classified in Level 2 of the fair value hierarchy December 31, 2019 and 2018 are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Private debt obligations classified in Level 3 at December 31, 2019 and 2018 are valued based on the underlying assets of the collateralized trust held by the guarantor of the private debt obligation.

Pension Trust Fund

At December 31, 2019, the Authority did not hold any investments in the pension trust fund with a designated maturity date. At December 31, 2018, the Authority held the following investment balances in the pension trust fund:

			Maturity in Years									
		Fair	Less than			1-5		6-10	Mor	e than		
	Ma	rket Value		1 year	,	Years		Years	10	years		
Municipal obligations	\$	51,340	\$	-	\$	-	\$	51,340	\$	-		
Corporate and foreign bonds		49,897		49,897								
Total	\$	101,236	\$	49,897	\$	_	\$	51,340	\$	_		

Interest Rate Risk – The Authority's investment policy does not limit investment maturities as a means of managing exposure to fair value losses arising from increasing rates. Interest rate risk is the risk that changes in the 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. The Authority's investment policy requires the average fixed income quality to be maintain at an "A" or better and no more than 15% off the fixed income portion to be invested in "BBB" rated bonds. As of December 31, 2019, the Authority's money market funds of \$165,467 were rated Aaa-mf.

As of December 31, 2018, the Authority's money market funds of \$403,058 were rated Aaa-mf. The Authority had \$49,897 in corporate and foreign bonds rated Baa2.

Concentration of Credit Risk– The investment policies of the Pension Trust Funds limits the range of allocation of the investment portfolio as follows:

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

	% Range of	Allocation
Investment Type	Minimum	Maximum
Equities	40%	70%
Fixed income	40%	70%
Cash equivalents	0%	20%
Alternative investments	0%	10%

At December 31, 2019, all assets are allocated within the accepted ranges.

The Authority has the following recurring fair value measurements as of December 31, 2019:

	Level 1	 Level 2	Level 3	Total		
Cash and cash equivalents	\$ 54,886	\$ -	\$ -	\$	54,886	
Mutual funds	1,742,880	-	-		1,742,880	
Common stocks	1,251,058	-	-		1,251,058	
Municipal bonds		 				
	\$ 3,048,824	\$ -	\$ _	\$	3,048,824	

The Authority has the following fair value measurements as of December 31, 2018:

_	Level 1	Level 2	Level 3	Total		
Cash and cash equivalents	\$ 71,756	\$ -	\$ -	\$	71,756	
Mutual funds	1,438,626	-	-		1,438,626	
Common stocks	945,834	-	-		945,834	
Municipal bonds		 101,236	 		101,236	
	\$ 2,456,216	\$ 101,236	\$ -	\$	2,557,452	

Cash and cash equivalents, mutual funds, and common stocks classified in Level 1 of the fair value hierarchy at December 31, 2019 and 2018 are valued using prices quoted in active markets for those securities. Municipal bonds classified in Level 2 of the fair value hierarchy December 31, 2019 and 2018 are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

4. Capital Assets

A summary of changes in capital assets is as follows:

Capital assets, not being depreciated: Same and service of the policy of t			Balance at				Balance at
Capital assets, not being depreciated: \$ 1,465,761 \$ 411,915 \$ (1,877,676) \$ - Capital assets, being depreciated: \$ 34,838,488 37,580 1,877,676 36,753,744 Plant and system 34,838,688 37,580 1,877,676 36,753,744 Vehicles and equipment 1,222,366 102,780 - 1,325,146 Other capital improvements 1,838,617 - - 1,838,617 Total capital assets, being depreciated 37,899,471 140,360 1,877,676 39,917,507 Less accumulated depreciation (16,817,320) (1,262,375) - (18,079,695) Total capital assets, being depreciated, net 21,082,151 (1,122,015) 1,877,676 21,837,812 Total capital assets, net \$ 22,547,912 \$ (710,100) \$ - \$ 21,837,812 Balance at December 31, 2017 Additions Transfers/ Deletions Balance at December 31, 2018 Capital assets, not being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: \$ 1,020,575 \$ 590,251		De	ecember 31,		Transfers/	D	ecember 31,
Construction in progress \$ 1,465,761 \$ 411,915 \$ (1,877,676) \$ — Capital assets, being depreciated: Plant and system 34,838,488 37,580 1,877,676 36,753,744 Vehicles and equipment 1,222,366 102,780 — 1,325,146 Other capital improvements 1,838,617 — — 1,838,617 Total capital assets, being depreciated 37,899,471 140,360 1,877,676 39,917,507 Less accumulated depreciation (16,817,320) (1,262,375) — — (18,079,695) Total capital assets, being depreciated, net 21,082,151 (1,122,015) 1,877,676 21,837,812 Total capital assets, net \$ 22,547,912 \$ (710,100) \$ — \$ 21,837,812 Balance at December 31, 2017 Additions Deletions Deletions December 31, 2018 Capital assets, not being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Plant and system			2018	Additions	 Deletions		2019
Capital assets, being depreciated: 34,838,488 37,580 1,877,676 36,753,744 Plant and system 1,222,366 102,780 - 1,325,146 Other capital improvements 1,838,617 - - 1,838,617 Total capital assets, being depreciated 37,899,471 140,360 1,877,676 39,917,507 Less accumulated depreciation (16,817,320) (1,262,375) - (18,079,695) Total capital assets, being depreciated, net 21,082,151 (1,122,015) 1,877,676 21,837,812 Total capital assets, net \$ 22,547,912 \$ (710,100) \$ - \$ 21,837,812 Balance at December 31, 2017 Additions Deletions Balance at December 31, 2018 Construction in progress \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: Plant and system 34,631,663 61,760 145,065 34,838,488 Vehicles and equipment 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212<	Capital assets, not being depreciated:						
Plant and system 34,838,488 37,580 1,877,676 36,753,744 Vehicles and equipment 1,222,366 102,780 - 1,325,146 Other capital improvements 1,838,617 - - 1,838,617 Total capital assets, being depreciated 37,899,471 140,360 1,877,676 39,917,507 Less accumulated depreciation (16,817,320) (1,262,375) - (18,079,695) Total capital assets, being depreciated, net 21,082,151 (1,122,015) 1,877,676 21,837,812 Total capital assets, net \$ 22,547,912 \$ (710,100) \$ - \$ 21,837,812 Balance at December 31, 2017 Additions Deletions Deletions 2018 Capital assets, not being depreciated: * 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: * 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,89	Construction in progress	\$	1,465,761	\$ 411,915	\$ (1,877,676)	\$	
Vehicles and equipment Other capital improvements 1,222,366 1,838,617 102,780 1,335,146 Other capital improvements 1,838,617 1,838,617 Total capital assets, being depreciated 37,899,471 140,360 1,877,676 39,917,507 Less accumulated depreciation (16,817,320) (1,262,375) (18,079,695) Total capital assets, being depreciated, net 21,082,151 (1,122,015) 1,877,676 21,837,812 Total capital assets, net \$ 22,547,912 \$ (710,100) \$ \$ 21,837,812 Balance at December 31, 2017 Additions Deletions 2018 Capital assets, not being depreciated: Transfers/ Deletions 2018 Capital assets, being depreciated: \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated:	Capital assets, being depreciated:						
Other capital improvements 1,838,617 — — 1,838,617 Total capital assets, being depreciated 37,899,471 140,360 1,877,676 39,917,507 Less accumulated depreciation (16,817,320) (1,262,375) — (18,079,695) Total capital assets, being depreciated, net 21,082,151 (1,122,015) 1,877,676 21,837,812 Total capital assets, net \$ 22,547,912 \$ (710,100) \$ — \$ 21,837,812 Balance at December 31, 2017 Additions Deletions December 31, 2018 Capital assets, not being depreciated: ** ** \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: ** ** \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: ** ** \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: ** ** ** \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: ** ** ** ** ** ** ** ** ** ** ** ** <td< td=""><td>Plant and system</td><td></td><td>34,838,488</td><td>37,580</td><td>1,877,676</td><td></td><td>36,753,744</td></td<>	Plant and system		34,838,488	37,580	1,877,676		36,753,744
Total capital assets, being depreciated 37,899,471 140,360 1,877,676 39,917,507 Less accumulated depreciation (16,817,320) (1,262,375) - (18,079,695) Total capital assets, being depreciated, net 21,082,151 (1,122,015) 1,877,676 21,837,812 Total capital assets, net \$ 22,547,912 \$ (710,100) \$ - \$ 21,837,812 Balance at December 31, 2017 Additions Deletions December 31, 2018 Capital assets, not being depreciated: ** 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: ** 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Plant and system 34,631,663 61,760 145,065 34,838,488 Vehicles and equipment 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) -	Vehicles and equipment		1,222,366	102,780	-		1,325,146
Less accumulated depreciation (16,817,320) (1,262,375) - (18,079,695) Total capital assets, being depreciated, net 21,082,151 (1,122,015) 1,877,676 21,837,812 Total capital assets, net \$ 22,547,912 \$ (710,100) \$ - \$ 21,837,812 Balance at December 31, 2017 Additions Transfers/ Deletions December 31, 2018 Capital assets, not being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: \$ 34,631,663 61,760 145,065 34,838,488 Vehicles and equipment 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151	Other capital improvements		1,838,617	-	-		1,838,617
Total capital assets, being depreciated, net 21,082,151 (1,122,015) 1,877,676 21,837,812 Total capital assets, net \$ 22,547,912 \$ (710,100) \$ - \$ 21,837,812 Balance at December 31, 2017 Additions Deletions 2018 Capital assets, not being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: \$ 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151	Total capital assets, being depreciated		37,899,471	140,360	1,877,676		39,917,507
Balance at December 31, 2017 Additions Transfers December 31, 2017 Deletions 2018	Less accumulated depreciation		(16,817,320)	(1,262,375)	 -		(18,079,695)
Balance at December 31, 2017 Additions Transfers/ December 31, 2018 Capital assets, not being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Plant and system \$ 34,631,663 \$ 61,760 \$ 145,065 \$ 34,838,488 Vehicles and equipment \$ 1,026,632 \$ 195,734 - \$ 1,222,366 Other capital improvements \$ 1,816,405 \$ 22,212 - \$ 1,838,617 Total capital assets, being depreciated \$ 37,474,700 \$ 279,706 \$ 145,065 \$ 37,899,471 Less accumulated depreciation \$ (15,635,301) \$ (1,182,019) - \$ (16,817,320) Total capital assets, being depreciated, net \$ 21,839,399 \$ (902,313) \$ 145,065 \$ 21,082,151	Total capital assets, being depreciated, net		21,082,151	(1,122,015)	1,877,676		21,837,812
Capital assets, not being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Plant and system 34,631,663 61,760 145,065 34,838,488 Vehicles and equipment 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151	Total capital assets, net	\$	22,547,912	\$ (710,100)	\$ -	\$	21,837,812
Construction in progress \$ 1,020,575 \$ 590,251 \$ (145,065) \$ 1,465,761 Capital assets, being depreciated: Plant and system 34,631,663 61,760 145,065 34,838,488 Vehicles and equipment 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151							
Capital assets, being depreciated: Plant and system 34,631,663 61,760 145,065 34,838,488 Vehicles and equipment 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151			ecember 31,	 Additions	· ·		ecember 31,
Plant and system 34,631,663 61,760 145,065 34,838,488 Vehicles and equipment 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151	Capital assets, not being depreciated:		ecember 31,	 Additions	· ·		ecember 31,
Vehicles and equipment 1,026,632 195,734 - 1,222,366 Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151		De	ecember 31, 2017	 	Deletions		ecember 31, 2018
Other capital improvements 1,816,405 22,212 - 1,838,617 Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151	Construction in progress	De	ecember 31, 2017	 	Deletions		ecember 31, 2018
Total capital assets, being depreciated 37,474,700 279,706 145,065 37,899,471 Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151	Construction in progress Capital assets, being depreciated:	De	2017 1,020,575	 590,251	(145,065)		2018 1,465,761
Less accumulated depreciation (15,635,301) (1,182,019) - (16,817,320) Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151	Construction in progress Capital assets, being depreciated: Plant and system	De	1,020,575 34,631,663	 590,251 61,760	(145,065)		2018 1,465,761 34,838,488
Total capital assets, being depreciated, net 21,839,399 (902,313) 145,065 21,082,151	Construction in progress Capital assets, being depreciated: Plant and system Vehicles and equipment	De	1,020,575 34,631,663 1,026,632	 590,251 61,760 195,734	(145,065)		1,465,761 34,838,488 1,222,366
	Construction in progress Capital assets, being depreciated: Plant and system Vehicles and equipment Other capital improvements	De	1,020,575 34,631,663 1,026,632 1,816,405	 590,251 61,760 195,734 22,212	(145,065) 145,065		1,465,761 34,838,488 1,222,366 1,838,617
Total capital assets, net \$ 22,859,974 \$ (312,062) \$ - \$ 22,547,912	Construction in progress Capital assets, being depreciated: Plant and system Vehicles and equipment Other capital improvements Total capital assets, being depreciated	De	1,020,575 34,631,663 1,026,632 1,816,405 37,474,700	 590,251 61,760 195,734 22,212 279,706	(145,065) 145,065		1,465,761 34,838,488 1,222,366 1,838,617 37,899,471
	Construction in progress Capital assets, being depreciated: Plant and system Vehicles and equipment Other capital improvements Total capital assets, being depreciated Less accumulated depreciation	De	1,020,575 34,631,663 1,026,632 1,816,405 37,474,700 (15,635,301)	 590,251 61,760 195,734 22,212 279,706 (1,182,019)	145,065 - - 145,065		1,465,761 34,838,488 1,222,366 1,838,617 37,899,471 (16,817,320)

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

5. Long-Term Debt

Balance

Current interest bonds payable at December 31, 2019 are composed of the following individual issues:

		Balance						Balance	Due Within
	Dece	mber 31, 2018	New Issues	 Payments	Refu	unded	Decer	mber 31, 2019	One Year
Bonds Payable	\$	27,790,000	\$ -	\$ 1,225,000	\$	-	\$	26,565,000	\$ 1,270,000

Current interest bonds payable at December 31, 2018 are composed of the following individual issues:

Due Within

Balance

	Decer	mber 31, 2017	New Iss	ues		Payments	Re	etunded		Decer	nber 31, 201	L8	One Year
Bonds Payable	\$	28,985,000	\$		\$	1,195,000	\$			\$	27,790,00	00 \$	1,225,000
										Α	t Decemb	oer 31	Lst
										201	9	2	2018
Sewer Re	evenu	e Bonds, Re	funding	Series	of	2014 A, d	lue ir	า					_
annual p	rincip	oal installme	ents or i	manda	itoi	ry sinking	func	t					
•	•	ough August							\$ 18	3,910	0,000	\$ 19,	400,000

Sewer Revenue Bonds, Refunding Series of 2016, due in annual principal installments or mandatory sinking fund payments through August 1, 2028.

ments through August 1, 2028.	7,655,000	8,390,000
	26,565,000	27,790,000
Less: current portion	(1,270,000)	(1,225,000)
Total bonds payable - long-term	\$ 25,295,000	\$ 26,565,000

Sewer Revenue Bonds, Refunding Series of 2016

On May 3, 2016, the Authority issued Sewer Revenue Bonds, Refunding Series of 2016 (2016 Bonds), in the amount of \$9,820,000 to currently refund \$8,765,000 of the outstanding Sewer Revenue Bonds, Series of 2009 (2009 Bonds), currently refund certain other long-term indebtedness of the Authority held by the Pennsylvania Infrastructure Investment Authority, and to pay all the costs and expenses incident to the issuance of the

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

2016 Bonds. The 2016 Bonds bear interest semi-annually at rates ranging from 0.700% to 4.000%. A second supplemental indenture amending the original indenture dated September 15, 2009 was made and entered into as of May 3, 2016, between the Authority and the Trustee, Wells Fargo Bank, N.A.

Sewer Revenue Bonds, Refunding Series of 2014 A

On November 20, 2014, the Authority issued Sewer Revenue Bonds, Refunding Series of 2014 A (2014 A Bonds), in the amount of \$21,225,000 to advance refund \$14,360,000 of the outstanding 2009 Bonds, terminate the Debt Service Forward Delivery Agreement, and to be used to pay the costs of certain capital projects of the Authority. The 2014 A Bonds bear interest semi-annually at rates ranging from 2.000% to 5.000%. A first supplemental indenture amending the original indenture dated September 15, 2009 was made and entered into as of November 20, 2014, between the Authority and the Trustee, Wells Fargo Bank, N.A.

2009 Bond Indenture

A supplemental indenture (2009 Bond Indenture) was made and entered into as of September 15, 2009, between the Authority and the Trustee, Wells Fargo Bank, N.A. The 2009 Bond Indenture includes rate covenants that the Authority must meet on an annual basis. The Authority must generate operating surplus annually equal to 110% of the debt service requirements with respect to all outstanding bonds during the current fiscal year of the Authority. This calculation can only include operating revenues of the Authority and is not permitted to include the surplus of the revenue fund. If this condition is not met, the Authority has 60 days following written notice of such failure to commence actions necessary to correct such failure before it is considered in default. In 2019, the Authority was not in compliance with the rate covenant, as its operating surplus was less than 110% of the debt service requirements. In 2018, the Authority was in compliance with the rate covenant, as its operating surplus was greater than 110% of the debt service requirements.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

The following schedule summarizes the debt service requirements for bonds outstanding:

December 31,	Principal	Interest	 Total
2020	\$ 1,270,000	\$ 1,042,119	\$ 2,312,119
2021	1,325,000	986,119	2,311,119
2022	1,380,000	935,469	2,315,469
2023	1,435,000	882,669	2,317,669
2024	1,485,000	827,619	2,312,619
2025-2029	8,240,000	3,322,963	11,562,963
2030-2034	10,050,000	1,513,400	11,563,400
2035	 1,380,000	55,200	 1,435,200
	\$ 26,565,000	\$ 9,565,558	\$ 36,130,558

Current interest notes payable at December 31, 2019 are composed of the following:

	lance er 31, 2018	New Lo	oans	Pa	yments	 alance er 31, 2019	Due Within One Year
Direct borrowings - PWSA loan	\$ 85,298	\$		\$	15,781	\$ 69,517	\$ 16,253
	lance er 31, 2017	New Lo	oans	Pa	yments	alance er 31, 2018	Due Within One Year
Direct borrowings - PWSA loan	\$ 100,609	\$		\$	15,311	\$ 85,298	\$ 15,778

In July 2001, PennVest approved a loan for the Pittsburgh Water and Sewer Authority (PWSA) to fund a rehabilitation project in the Streets Run Interceptor Sewer, bearing interest at 1%. As described in Note 9 below, the Authority has agreed to share in the costs related to this project. Accordingly, the Authority is also responsible for a share of the PennVest loan. Payments are to be paid to PWSA through fiscal year 2024. The outstanding balance of the loan is \$69,517 and \$85,298 at December 31, 2019 and 2018, respectively.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

The following summarizes the required payments for the PWSA loan:

December 31,	Principal		Interest		Total	
2020	\$	16,253	\$	1,844	\$	18,097
2021		16,743		1,355		18,098
2022		17,247		851		18,098
2023		17,766		332		18,098
2024		1,508		4		1,512
		69,517	\$	4,386	\$	73,903
Current portion		16,253				
Notes Payable	\$	53,264				

6. Pension Plan

Description of Plan

The Authority's Pension Plan (plan) is a single employer defined benefit pension plan established under the provisions of Act 205 of 1984 of the Commonwealth of Pennsylvania (Act). The plan was established on August 21, 1996 and is governed by the Board of Directors (Board) of the Authority, which may amend plan provisions, and which is responsible for the management of plan assets. The Board has delegated the authority to manage certain plan assets to US Asset Management. The plan does not issue separate stand-alone financial statements.

The plan is available to any person employed on a full-time, permanent basis by the Authority, hired prior to December 31, 2006. Participation in the plan was frozen to new entrants effective December 31, 2006. Pension benefits become 100 percent vested after the completion of five years of credited service. Eligibility for the normal retirement benefit is after the attainment of age 65 and completion of 15 years of credited service or attainment of age 62 and completion of 25 years of credited service. The accrued benefit is equal to \$40 times years of credited service at determination. The normal form of payment is a monthly pension benefit payable for life with 120 payments guaranteed.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

At December 31, 2019, plan membership consisted of the following:

Active	14
Retireees and beneficiaries currently receiving benefits	14
Terminated plan members entitled to, but not yet receiving benefits	5
Total	33

The plan also has specific provisions for early and late retirement, disability, and death benefits.

Benefits Provided – Employees

Retirement Benefit – For normal retirement, a participant is entitled to begin receiving benefits at the age of 65 and completion of 15 years of credited service. The scheduled monthly retirement benefit is payable monthly during the participant's lifetime, with 120 payments guaranteed. The amount of monthly pension is equal to \$40 times years of continuous service. For special retirement, a participant is eligible after attainment of age 62 and 25 years of service, at which time the participant may commence receiving the unreduced accrued benefit.

Disability Benefit – A participant is eligible for disability benefits if there is total and permanent disablement that qualifies the participant for Social Security disability benefits. The participant is then eligible for immediate monthly payment of the accrued benefit.

Death Benefit – If a participant's death occurs after vesting but before retirement, and is vested, 100% of the contributions plus interest will be refunded to the designated beneficiary.

Cost-of-Living Adjustments — Benefit terms do not provide for annual cost-of-living adjustments to each member's retirement allowance subsequent to the member's retirement date.

Contributions

The Authority is required to contribute an actuarially determined amount necessary to fund the plan using the actuarial basis specified by statute. The Act requires that annual

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

contributions be based upon the calculation of the Minimum Municipal Obligation (MMO). The MMO calculation is based upon the biennial actuarial valuation.

Under the terms of the plan, all participating employees are required to contribute \$40 per month of their compensation under the plan.

During 2019, the Authority paid the calculated MMO of \$138,334 into the plan. During 2018, the Authority paid the calculated MMO of \$168,085 into the plan.

Net Pension Liability

Measurement Date and Actuarial Assumptions – The Authority's net pension liability was measured as of December 31, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of January 1, 2019.

Actuarial Assumptions – The total pension liability was determined by an actuarial valuation using the following actuarial assumptions, applied to all periods in the measurement:

Actuarial cost method	Entry age normal
Actuarial assumptions:	
Investment rate of return	5.25%
Projected salary increases	3.50%
Underlying inflation rate	2.50%

Pub-2010 (General, MP-2019) Mortality Table

Changes in Actuarial Assumptions – Changes were made to the actuarial assumptions used in the January 1, 2019 valuation since the previous actuarial valuation on January 1, 2018. The changes include a decrease in the underlying discount rate from 6.25% to 5.25%. The mortality table was updated from the RP-2006 Blue Collar Table projected with Scale MP-2017 to the Pub-2010 General Table Projected with Scale MP-2019. The expected remaining service lives decreased from 4.1 to 3.9 years.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

Investment Policy – The plan's policies in regard to the allocation of invested assets is established and may be amended by the Board by a majority vote of its members. It is the policy of the Board to pursue an investment strategy that balances asset growth with risk tolerance achieving an average annual return of 6.25% over a 10-year period, maintain the liquidity to have the ability to pay all benefits and expense obligations when due in accordance with the plan provision, diversify the assets to experience a positive total investment return preserving capital and purchase power against economic inflation, and continue to grow assets at a rate above and beyond that of the actuarial assumption of 5.25% per year.

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 geometric real rates of return for each major asset class included in the plan's target asset allocations as of December 31, 2019 and 2018:

Asset Class	Target Allocation	Long-Term Expected Rate of Return
Domestic Equities	45%	6.96%
International Equities	5%	1.53%
Fixed Income	45%	2.91%
Cash & Cash Equivalents	5%	0.00%
	100%	

Rate of Return – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the years ended December 31, 2019 and 2018, the annual money-weighted rate of return on the plan investments, net of investment expense, was 20.38% and (2.82)%, respectively.

Concentrations – The plan had no investment concentrations at December 31, 2019 and 2018.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

Discount Rate – The discount rate used to measure the total pension liability for the plan was 5.25%. The projection of cash flows used to determine the discount rate assumed the plan member contributions will be made at the current contribution rate and that the Authority's contributions will be made based on the yearly MMO calculation. Based on those assumptions, the plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability – Changes in the Authority's net pension liability are as follows:

	Total Pension Liability		Plan Net Position		et Pension Liability	
Balances at 12/31/18	\$	2,937,777	\$	2,560,043	\$	377,734
Changes for the year:						
Service cost		38,115		-		38,115
Interest		180,269		-		180,269
Employer contributions		-		138,334		(138,334)
Member contributions		-		7,200		(7,200)
Net investment income (loss)		-		516,001		(516,001)
Change of assumptions		469,739		-		469,739
Benefits payments, including refunds						
of employee contributions		(171,225)		(171,225)		-
Differences between expected and						
actual experience		14,325		-		14,325
Other changes		-		-		-
Administrative expenses		-		-		-
Balances 12/31/19	\$	3,469,000	\$	3,050,353	\$	418,647

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

	Total Pension Liability				N	et Pension Liability
Balances at 12/31/17	\$	3,001,668	\$	2,634,712	\$	366,956
Changes for the year:						
Service cost		38,869		-		38,869
Interest		184,353		-		184,353
Employer contributions		-		168,085		(168,085)
Member contributions		-		7,340		(7,340)
Net investment income (loss)		-		(73,492)		73,492
Change of assumptions		-		-		-
Benefits payments, including refunds						
of employee contributions		(167,702)		(167,702)		-
Differences between expected and						
actual experience		(119,411)		-		(119,411)
Other changes		-		-		-
Administrative expenses				(8,900)		8,900
Balances 12/31/18	\$	2,937,777	\$	2,560,043	\$	377,734

Sensitivity of the Net Pension Liability to Changes in the Discount Rate — The following presents the net pension liability of the plan calculated using the discount rates described above, as well as what the plan's net pension liabilities would be if they were calculated using a discount rate that is one-percentage-point lower or one-percentage-point higher than the current rate:

	1% Decrease		Disc	Discount Rate		Increase
	(4.25%)		((5.25%)		6.25%)
Pension Plan	\$	826,635	\$	418,647	\$	75,290

Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions — For the years ended December 31, 2019 and 2018, the Authority recognized pension expense of \$102,151 and \$58,416, respectively. At December 31, 2019, the Authority reported deferred outflows and inflows of resources related to pensions from the following sources:

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

	 Deferred Outflows of Resources		red Inflows of esources
Differences between expected and actual experience	\$ 10,652	\$	138,539
Change of assumptions Net difference between projected and actual earnings on pension plan	377,697		-
investments	 -		205,893
	\$ 388,349	\$	344,432

At December 31, 2018, the Authority reported deferred outflows and inflows of resources related to pensions from the following sources:

	 Deferred Outflows of Resources		red Inflows of esources
Differences between expected and actual experience	\$ _	\$	203,110
Change of assumptions Net difference between projected and actual earnings on pension plan	42,606		-
investments	 220,177		92,852
	\$ 262,783	\$	295,962

The net amount of deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Year Ending December 31:	_	
2020	\$	18,229
2021		19,187
2022		78,142
2023		(71,641)
	\$	43,917

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

7. Postemployment Benefits Other Than Pension Benefits (OPEBs)

Plan Description

In addition to the benefits described in Note 6, the Authority provides postemployment healthcare benefits and post-retirement life insurance to all of its retiring employees (Union and Non-Union). The OPEB plan is a single employer defined benefit OPEB plan administered by the Authority. No assets are accumulated in a trust to pay related benefits. This plan does not issue stand-alone financial statements.

All employees, union and non-union, are eligible to receive the postemployment benefits. The Authority does not have a specific age at which employees are eligible to receive postemployment benefits; rather, the only requirement is that the employee must retire and not be terminated.

Benefits Provided

At retirement, the retiree receives a fully paid premium life insurance policy, with \$8,000 death benefit. The Authority purchases the policy while the employee is in service; at retirement, the Authority assigns the policy to the retiree. Policies held for employees who terminate for reasons other than retirement are cashed in, with the proceeds returning to the Authority.

The Authority also provides postemployment medical benefits, applicable to retirees who retire at less than age 65. The Authority pays 100% of COBRA composite rate of Western Pennsylvania Teamsters Plan 9a for earlier of 18 months or the date the retiree reaches age 65. If the retiree wishes to continue coverage, the Authority will pay 100% of the premium for a retiree selected plan that provides health benefits comparable to Plan 9a, until the retiree reaches age 65.

There are no postemployment benefits provided to spouses.

NOTES TO FINANCIAL STATEMENTS

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Employees Covered by Benefit Terms

As of January 1, 2019, the following employees were covered by the benefit terms:

Current retired participants receiving	
OPEB benefits	1
Active participants	23
	24

Total OPEB Liability

The Authority's total OPEB liability of \$345,861 was measured as of December 31, 2018 and was determined by an actuarial valuation as of January 1, 2018 rolled forward to December 31, 2019.

Actuarial Assumptions

The following actuarial assumptions were applied to all periods including the measurement:

Actuarial funding method	Entry Age Normal, level % of pay

Amortization of unfunded accrued liability 30 year open from valuation date level dollar using

valuation discount rate

Salary increases 3.50%

Discount rate 4.09% per year

Healthcare cost trend rates 5.40% for 2019; Based on Society of Actuaries

Long-Run Medical Cost Trend Model

Mortality Table RP-2006 (rates underlying RP-2014), generational

Scale MP-2018, Male and Female (total dataset) for

employees with blue collar adjustment

The discount rate was based on the index rate for 20-year tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

The actuarial assumptions used in the January 1, 2018 valuation were based on the results of an actuarial experience study as of January 1, 2018.

Changes in the Total OPEB Liability

	Total OPEB Liability					
		2019	2018			
Balance at January 1,	\$	344,370	\$	311,347		
Changes for the year:						
Service cost		23,080		22,312		
Interest		11,552		10,711		
Changes of assumptions		(16,031)		-		
Benefit payments		(17,110)				
Net changes		1,491		33,023		
Balance at December 31,	\$	345,861	\$	344,370		

There were no changes of benefit terms.

The discount rate was updated from 3.44% to 4.09%.

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

The following presents the total OPEB liability of the Authority, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is one-percentage-point lower or one-percentage-point higher than the current discount rate as of December 31, 2019:

	1%	1% Decrease		count Rate	1% Increase		
		(3.09%)		(4.09%)		(5.09%)	
Total OPEB liability	\$	370,949	\$	345,861	\$	323,079	

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

The following presents the total OPEB liability of the Authority, as well as what the Authority's total OPEB liability would be if it were calculated using healthcare cost trend

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

rates that are one-percentage-point lower or one-percentage-point higher than the current healthcare cost trend rates as of December 31, 2019:

	1%	1% Decrease Discount Rate		count Rate	1%	6 Increase
		(4.40%)	(5.40%)			(6.40%)
				_		
Total OPEB liability	\$	316,042	\$	345,861	\$	380,876

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

For the year ended December 31, 2019, the Authority recognized OPEB expense of \$33,769. At December 31, 2019, the Authority reported deferred outflows of resources of \$22,136 related to OPEB contributions made after the valuation date, which will be recognized in full during calendar year 2020. The Authority reported deferred inflows of resources of \$15,168 related to changes in assumptions used in the OPEB valuation, which will be amortized as follows:

Year Ending December 31:	_	
2020	_	(0.62)
2020	\$	(863)
2021		(863)
2022		(863)
2023		(863)
2024		(863)
2025 and after		(10,853)
	\$	(15,168)

8. Deferred Compensation Plan

The Authority offers its employees a deferred compensation plan (plan) created in accordance with the Internal Revenue Service Code Section 457. The plan, available to all eligible, full-time Authority 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 employees until termination, retirement, death, or unforeseeable emergency.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

At December 31, 2019, all amounts of compensation deferred under the plan, all property and rights purchased with those amounts, and all income attributable to those amounts, were held in trust solely for the benefit of the participants. Investments are managed by the plan's trustee under several investment options selected by the participant. Under the provisions of GASB Statement No. 32, "Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans," the deferred compensation plan is not required to be included in the Authority's financial statements.

9. Intermunicipal Agreement

On July 18, 2000, Baldwin Borough, Whitehall Borough, Brentwood Borough, and the Authority entered into an intermunicipal agreement to participate in the construction of the Streets Run Trunk Sewer Rehabilitation Project. As part of this agreement, the Authority will be responsible for maintaining an allocated portion of the Interceptor sewer lines based on an Allegheny County Board of Viewers allocation dated September 18, 1950. The costs incurred to rehabilitate the lines are being amortized over their useful life. The net unamortized balance is reported as cost of sewer capacity improvements on the statements of net position.

Pursuant to various inter-municipal agreements and resolutions adopted by Baldwin Borough, Whitehall Borough, Brentwood Borough, and the Authority, the PWSA performed a rehabilitation project in the Streets Run Interceptor Sewer, provided that the City of Pittsburgh and the other municipalities named above would share in the cost of maintaining and repairing the Streets Run Interceptor Sewer. PWSA and the Authority have agreed that the Authority will be responsible for 18% of the costs of such maintenance repairs for purposes of this specific project. The costs incurred to rehabilitate the lines are being amortized over their useful life. The net unamortized balance is reported as cost of sewer capacity improvements on the statements of net position. The related liability is also included on the statements of net position.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2019 AND 2018

10. Commitments and Contingencies

Contingencies

The Authority is party to a number of actual and possible matters of litigation. The ultimate outcome of such matters is not expected to be material to the Authority's financial statements.

11. Risk Management

The Authority is exposed to various risks of loss related to torts, theft of, damage to, and destruction of assets; errors or omissions; and injuries to employees; and natural disasters. These risks are covered by commercial insurance purchased from independent third parties. Settled claims from these risks have not significantly exceeded commercial insurance coverage in the past. There were no significant changes in insurance coverage during the year.

12. Subsequent Event

In early 2020, an outbreak of a novel strain of coronavirus was identified and infections have been found in a number of countries around the world, including the United States. The coronavirus and its associated impacts on supply chains, travel, employee productivity, and other economic activities has had, and may continue to have, a material effect on financial markets and economic activity. The extent of the impact of the coronavirus on the Authority's operational financial performance is currently uncertain and cannot be predicted.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN THE AUTHORITY'S NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years¹

	2019		2018		2017		2016		2015
Total Pension Liability:									
Service cost	\$ 38,115	\$	38,869	\$	27,752	\$	27,787	\$	27,835
Interest	180,269		184,353		191,399		188,551		189,475
Differences between expected and actual experience	14,325		(119,411)		(126,698)		(5,953)		(70,439)
Changes of assumptions	469,739		-		71,010		-		-
Benefit payments, including refunds of member contributions	 (171,225)	_	(167,702)	_	(172,829)		(158,756)	_	(168,826)
Net Changes in Total Pension Liability	531,223		(63,891)		(9,366)		51,629		(21,955)
Total Pension Liability - Beginning	 2,937,777		3,001,668		3,011,034		2,959,405		2,981,360
Total Pension Liability - Ending (a)	\$ 3,469,000	\$	2,937,777	\$	3,001,668	\$	3,011,034	\$	2,959,405
Plan Fiduciary Net Position:									
Contributions - employer	\$ 138,334	\$	168,085	\$	168,634	\$	194,661	\$	188,271
Contributions - member	7,200		7,340		6,720		9,120		9,120
Net investment income (loss)	516,001		(73,492)		301,267		136,462		(15,918)
Benefit payments, including refunds of member contributions	(171,225)		(167,702)		(172,829)		(158,756)		(168,826)
Administrative expense	-		(8,900)		(3,575)		(12,462)		-
Other	 -	_	-	_	772	_	-	_	-
Net Change in Plan Fiduciary Net Position	490,310		(74,669)		300,989		169,025		12,647
Plan Fiduciary Net Position - Beginning	 2,560,043	_	2,634,712	_	2,333,723	_	2,164,698	_	2,152,051
Plan Fiduciary Net Position - Ending (b)	\$ 3,050,353	\$	2,560,043	\$	2,634,712	\$	2,333,723	\$	2,164,698
Net Pension Liability - Ending (a-b)	\$ 418,647	\$	377,734	\$	366,956	\$	677,311	\$	794,707
Plan Fiduciary Net Position as a Percentage									
of the Total Pension Liability	 87.9%	_	87.1%	_	87.8%	_	77.5%	_	73.1%
Covered Payroll	\$ 1,043,355	\$	1,096,668	\$	1,159,896	\$	1,253,376	\$	1,211,986
Net Pension Liability as a Percentage									
of Covered Payroll	40.13%		34.44%		31.64%		54.04%		65.57%

¹ The amounts presented for each fiscal year were determined as of the measurement date, which is December 31 of the immediately preceding fiscal year. This schedule is intended to illustrate information for 10 years. However, until a full 10-year trend is compiled, the Authority is presenting information for those years only for which information is available.

SCHEDULE OF AUTHORITY'S CONTRIBUTIONS

FOR THE YEARS ENDING DECEMBER 31, 2010 - DECEMBER 31, 2019

Schedule of Authority's Contributions	2019		2018 2017		2016		 2015		
Actuarially determined contribution Contributions in relation to the actuarially determined contribution	\$	138,334 138,334	\$	168,085 168,085	\$	168,634 168,634	\$	194,661 194,661	\$ 188,271 188,271
Contribution deficiency (excess)	\$		\$		\$		\$		\$
Covered payroll	\$	1,119,900	\$	1,155,407	\$	1,347,313	\$	1,666,172	\$ 1,496,897
Contributions as a percentage of covered payroll		12.35%		14.55%		12.52%		11.68%	12.58%
Schedule of Authority's Contributions		2014		2013		2012		2011	2010
Actuarially determined contribution Contributions in relation to the actuarially determined contribution	\$	157,102 157,102	\$	159,449 159,449	\$	110,505 110,505	\$	108,787 108,787	\$ 97,471 103,379
Contribution deficiency (excess)	\$		\$		\$		\$		\$ (5,908)
Covered payroll	\$	1,385,242	\$	1,526,418	\$	1,544,179	\$	1,614,210	\$ 1,702,266
Contributions as a percentage of covered payroll		11.34%		10.45%		7.16%		6.74%	6.07%

SCHEDULE OF AUTHORITY'S INVESTMENT RETURNS

Last 10 Fiscal Years¹

	2019	2018	2017	2016	2015
Investment Returns	=				
Annual money-weighted rate of return, net of investment expense	20.38%	-2.82%	13.05%	6.72%	-0.75%

¹ The amounts presented for each fiscal year were determined as of the measurement date, which is December 31 of the immediately preceding fiscal year. This schedule is intended to illustrate information for 10 years. However, until a full 10-year trend is compiled, the Authority is presenting information for those years only for which information is available.

SCHEDULE OF CHANGES IN THE AUTHORITY'S TOTAL OPEB LIABILITY AND RELATED RATIOS

LAST 10 FISCAL YEARS*

	 2019		2018		
Total OPEB Liability:					
Service cost	\$ 23,080	\$	22,312		
Interest	11,552		10,711		
Changes of benefit terms	-		-		
Differences between expected and actual experiences	-		-		
Changes of assumptions	(16,031)		-		
Benefit payments	 (17,110)				
Net Change in Total OPEB Liability	1,491		33,023		
Total OPEB Liability - Beginning	 344,370		311,347		
Total OPEB Liability - Ending	\$ \$ 345,861 \$				

^{*} Until a full 10-year trend is compiled, the required information for the plan is presented only for those years for which information is available.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

YEAR ENDED DECEMBER 31, 2019

<u>Actuarial Methods and Assumptions - Pension</u>

The information presented in the required supplementary pension schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Actuarial valuation date 12/31/2019

Actuarial cost method Entry Age

Normal

Amortization method Level Dollar

Closed

Remaining amortization period 7 years

Asset valuation method 3-Year Smoothing

Actuarial assumptions:

Investment rate of return5.25%Projected salary increases3.50%Underlying inflation rate2.50%

Pre- and Post-Mortality

Assumptions: Pub-10, General

Retirement age Normal Retirement Age

Benefit Changes - Pension

No benefit terms were modified.

Changes in Actuarial Assumptions - Pension

Changes were made to the actuarial assumptions used in the December 31, 2019 valuation since the previous actuarial valuation on January 1, 2018. The changes include a decrease in the underlying discount rate from 6.25% to 5.25%. The mortality table was updated from the RP-2006 Blue Collar Table projected with Scale MP-2017 to the Pub-2010 General Table Projected with Scale MP-2019. The expected remaining service lives decreased from 4.1 to 3.9 years.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

YEAR ENDED DECEMBER 31, 2019

Actuarial Methods and Assumptions - OPEB

The information presented in the required supplementary OPEB schedule was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Actuarial valuation date 1/1/2018

Actuarial funding method Entry Age Normal, level % of pay

Amortization of unfunded accrued liability 30 year open from valuation date level dollar using

valuation discount rate

Salary increases 3.50%

Discount rate 4.09% per year

Healthcare cost trend rates 5.40% for 2019; Based on Society of Actuaries

Long-Run Medical Cost Trend Model

Mortality Table RP-2006 (rates underlying RP-2014), generational

Scale MP-2018, Male and Female (total dataset) for

employees with blue collar adjustment

The discount rate was based on the index rate for 20-year tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

Benefit Changes - OPEB

No benefit terms were modified.

Changes in Actuarial Assumptions - OPEB

Changes were made to the actuarial assumptions used in the December 31, 2018 measurement since the previous measurement date of December 31, 2017. These changes include an increase in discount rate from 3.44% to 4.09%.

SUPPLEMENTARY INFORMATION

ANALYSIS OF OPERATING REVENUES AND EXPENSES

YEARS ENDED DECEMBER 31, 2019 AND 2018

	 2019		2018			
Operating Revenues:	 		_			
Sewage rentals	\$ 6,930,359	\$	7,103,812			
Operating Expenses:						
Sewer system operation:						
Sewage treatment plants	\$ 398,447	\$	441,805			
Utilities	432,684		462,904			
Sewer crew expenses	62,035	31,070				
Pretreatment expenses	7,088	13,103				
Payroll	1,704,239		1,674,982			
Payroll taxes	135,162		130,879			
Benefits	658,198		612,230			
Office supplies	24,022		20,627			
Communications	25,087		20,777			
Postage	500		1,042			
Advertisements	2,054	96				
Fee collection costs	207,108	205,72				
Engineering fees	28,028	24,855				
Insurance	158,393		141,051			
Professional services	77,494		71,844			
Miscellaneous expenses	34,605	44,26				
Purchased sewer treatment	696,100	635,769				
Depreciation and amortization	1,282,326		1,201,970			
Bad debt expense	 <u>-</u>		1,000			
Total operating expenses	\$ 5,933,570	\$	5,736,867			