West Mifflin Sanitary Sewer Municipal Authority

Financial Statements and Required Supplementary Information and Supplementary Information

Years Ended December 31, 2018 and 2017 with Independent Auditor's Report



YEARS ENDED DECEMBER 31, 2018 AND 2017

TABLE OF CONTENTS

Independent Auditor's Report	
Management's Discussion and Analysis	i
Financial Statements:	
Statements of Net Position	1
Statements of Revenues, Expenses, and Changes in Net Position	2
Statements of Cash Flows	3
Notes to Financial Statements	4
Required Supplementary Information:	
Pension:	
Schedule of Changes in the Authority's Net Pension Liability and Related Ratios	30
Schedule of Authority's Contributions	31
Schedule of Authority's Investment Returns	32
Other Post-Employment Benefits (OPEB):	
Schedule of Changes in the Authority's Total OPEB Liability and Related Ratios	33
Notes to the Supplementary Schedules	34
Supplementary Information:	
Analysis of Operating Revenues and Expenses	36



Independent Auditor's Report

Board of Directors
West Mifflin Sanitary
Sewer Municipal Authority

We have audited the accompanying financial statements of the West Mifflin Sanitary Sewer Municipal Authority (Authority) as of and for the years ended December 31, 2018 and 2017, and the related notes to the financial statements,

which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Authority as of December 31, 2018 and 2017, and the changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Change in Accounting Principle

As discussed in Note 2 to the financial statements, the Authority adopted Governmental Accounting Standards Board (GASB) Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (OPEB)," which requires the Authority to record its total OPEB liability and related items on their financial statements. Our opinion is 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 ix and 30 through 35, 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 response to our inquiries, the basic financial statements, and other knowledge we obtained during our audits 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 schedule listed in the table of contents is presented for purposes of additional analysis and is

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

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, 2019

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 2018:

- In 2018, the flow billed decreased by 2,897,481 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 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. In 2017, the Authority treated 1,097,790,000 gallons for 8,872 customers at its two wastewater treatment plants. Of the gallons treated, only 529,786,286 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 2018, the Authority paid \$1,195,000 in principal on its outstanding Sewer Revenue Bonds, compared with principal payments made in 2017 of \$1,170,000.
- The Authority had an increase in the cost of operations (less depreciation and bad debt expense) in 2018 by \$56,295 or 1.26% when compared to 2017.
- Operating revenues decreased by \$120,758 or 1.67% in 2018 when compared to 2017.

- The Authority essentially completed and placed into service approximately \$424,000 in sewer system and treatment plant improvements in 2018.
- 2018 marks the fourth 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 \$377,734 at December 31, 2018, an increase of \$10,778, or 2.94% when compared to 2017.
- The Authority adopted Governmental Accounting Standards Board (GASB) Statement No. 75 during 2018. The standard changed how the OPEB liability of the organization is calculated and reported. Due to the adoption of GASB No. 75, the Authority began recording the total OPEB liability on their Statement of Net Position. As part of the implementation, the January 1, 2018 net position was decreased by \$311,347 from the December 31, 2017 reported net position. As permitted by the Statement No. 75, the Authority deemed it not practical to recompute the January 1, 2017 to December 31, 2017 financial statement impact of GASB No. 75, so the 2017 financial statements still reflect the GASB No. 45 accounting for OPEBs.

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 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 revenue and expenses are accounted for in the Statement of Operating 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 financial statement is the Statement of Cash Flows. The primary purpose of this statement is to provide information about the Authority's cash receipts and cash payments during the reporting period. The statement reports cash receipts, cash payments, and net changes in cash resulting from operations, investing, and financing activities, and the change in cash during the reporting period.

The Notes to 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. Beginning early in 2008, 40 accounts were being billed by the WMSSMA in this service area. In 2018, 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							
		2018	2017			\$ Change	% Change	
Assets and Deferred Outflows 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	1%	
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)	-1%	
Unrestricted net position		2,538,384		2,636,469		(98,085)	-4%	
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)		

	Condensed Statements of Net Position							
		2017	2016			\$ Change	% Change	
Assets and Deferred Outlfows of Resources								
Assets:								
Current assets	\$	3,883,274	\$	3,639,324	\$	243,950	7	
Restricted assets		3,638,140		6,023,399		(2,385,259)	-409	
Capital assets, net		22,859,974		21,492,077		1,367,897	69	
Other assets		251,921		271,872		(19,951)	-79	
Total Assets		30,633,309		31,426,672		(793,363)	<u>.</u>	
Deferred Outflows of Resources		1,887,815		1,960,725		(72,910)	-49	
Total Assets and Deferred Outflows of Resources	\$	32,521,124	\$	33,387,397	\$	(866,273)		
and Net Position Liabilities:								
			_				_	
Current liabilities Long-term liabilities	\$	2,068,941 29,639,985	\$	2,192,981 31,193,107	\$	(124,040) (1,553,122)	-6' -5'	
Total Liabilities		31,708,926		33,386,088			5	
	-	· ·				(1,677,162)		
Deferred Inflows of Resources		272,392		60,841		211,551	3489	
Net Position:								
Net investment in capital assets		(4,162,459)		(4,213,538)		51,079	-11	
Restricted net position		2,065,796		1,993,664		72,132	4	
Unrestricted net position		2,636,469		2,160,342		476,127	. 22	
Total Net Position		539,806		(59,532)		599,338		
Total Liabilities, Deferred Inflows of								
						(866,273)		

OTHER SELECTED INFORMATION

	2018	2017	Difference
Selected Data:			
Authorized Employees	23	23	0
Actual Employees at year-end	23	23	0
Wastewater Treated (billons of gallons)	1.16813	1.09779	0.07034
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			
	2017	2016	Difference
Selected Data:			
Authorized Employees	23	24	-1
Actual Employees at year-end	23	23	0
Wastewater Treated (billons of gallons)	1.09779	0.98559	0.1122
Wastewater Billed (billions of gallons)	0.529786	0.532848	-0.003062
Percentage of Billed/Treated Wastewater	48.26%	54.06%	-5.80%
Rates:			
Residential Fee	\$17.00	\$17.00	\$0.00
Commercial Fee	\$25.00	\$25.00	\$0.00
First 2,000 gallons/thousand	\$8.58	\$8.08	\$0.50
next 13,000 gallons/thousand	\$8.58	\$8.08	\$0.50
15,001-100,000 gallons/thousand	\$12.74	\$12.00	\$0.74
over 100,000 gallons/thousand	\$15.00	\$14.12	\$0.88
Average Residential Customer Bill:			
Per year	\$821.76	\$785.76	\$36.00
Per Month	\$68.48	\$65.48	\$3.00
* 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 2018 and 2017, 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 \$4,533,897 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.

Total operating expense, before depreciation and bad debt expense was \$4,477,602 in 2017 vs. \$4,608,500 in 2016. In 2017, operating expenses increased in pretreatment expenses, payroll taxes, communications, insurance, miscellaneous expenses, and purchased sewer treatment. There were reductions in sewage treatment plants, utilities, sewer crew expenses, payroll, benefits, office supplies, postage, advertisements, fee collection costs, engineering fees, and professional services.

Non-Operating Revenues and Non-Operating Expenses

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.

The Authority experienced significant reductions in Non-operating Revenue (Expense) between 2017 and 2016 primarily due to the Authority's \$214,871 issuance costs related to the 2016 bonds. In addition, interest expense on bonds and notes payable increased by \$343,636.

Depreciation

The Authority had a depreciation expense of \$1,201,970 and \$1,147,395 on plants and equipment in 2018 and 2017, respectively. In 2018 and 2017, respectively, the Authority completed approximately \$424,000 and \$1.99 million in various capital projects throughout the sewer system and treatment plants. Additionally, the Authority reports approximately \$1.4 million in construction in progress, with approximately \$266,000 remaining in construction commitments at December 31, 2018.

DEBT

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.

At December 31, 2017, the Authority had \$28,985,000 in bond debt.

In 2017, 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 2018 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, refunding debt to lower future debt service payments, and attempted cost-cutting through implementation of new operating procedures.

The Authority is looking at a potential cooperative agreement with the Pittsburgh Water and Sewer Authority to treat the wastewater from about 800 customers that would be connected by gravity to the Authority's sewer system and be treated at the Thompson Run Plant.

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, 2018 AND 2017

Assets and Deferred Outflows of Re	sources		Liabilities, Deferred Inflows of Resources, and Net Position					
	2018	2017		2018	2017			
Assets:			Liabilities:	_				
Current assets:	_		Current liabilities:	- "				
Cash and cash equivalents	\$ 2,864,183	\$ 2,625,387	Accounts payable	\$ 356,897	\$ 353,593			
Accounts receivable - user fees	1,027,917	1,137,804	Accrued payroll	43,030	37,502			
Accounts receivable - nonuser fees	20,985	8,618	Current portion of notes payable	15,778	15,317			
Prepaid expenses	116,217	107,081						
Interest receivable	10,354	4,384	Total current liabilities	415,705	406,412			
Total current assets	4,039,656	3,883,274	Current liabilities (payable from restricted assets):					
			Current portion of bonds payable long-term	1,225,000	1,195,000			
Restricted assets:			Bond interest payable	453,612	467,529			
Construction fund	478,981	1,104,815						
Debt service accounts	2,495,023	2,533,325	Total current liabilities (payable from restricted					
			assets)	1,678,612	1,662,529			
Total restricted assets	2,974,004	3,638,140						
			Long-term liabilities:					
Capital assets (at cost)	37,899,471	37,474,700	Accrued compensated absences	363,172	335,128			
Less: accumulated depreciation	(16,817,320)	(15,635,301)	Notes payable	69,520	85,292			
Construction in progress	1,465,761	1,020,575	Bonds payable	26,565,000	27,790,000			
			Unamortized bond premium	998,396	1,062,609			
Total capital assets, net (at cost)	22,547,912	22,859,974	Total OPEB liability	344,370	-			
			Net pension liability	377,734	366,956			
Other assets:								
Cost of sewer capacity improvements (net of amortization			Total long-term liabilities	28,718,192	29,639,985			
of \$290,552 and \$270,601 for 2018 and 2017, respectively)	231,970	251,921						
			Total Liabilities	30,812,509	31,708,926			
Total Assets	29,793,542	30,633,309	Deferred Inflows of Resources:	_				
			Deferred inflows of resources for pension	295,962	272,392			
Deferred Outflows of Resources:	_							
Deferred charge on refunding	1,670,311	1,769,049	Net Position:	_				
Deferred outflows of resources for pension	262,783	118,766	Net investment in capital assets	(3,944,520)	(4,162,459)			
Deferred outflows of resources for OPEB	17,110		Restricted net position	2,041,411	2,065,796			
Total Deferred Outflows of Resources	1,950,204	1,887,815	Unrestricted net position	2,538,384	2,636,469			
13td. Science Outnows of resources	1,550,204	1,007,013	Total Net Position	635,275	539,806			
Total Assets and Deferred Outflows of Resources	\$ 31,743,746	\$ 32,521,124	Total Liabilities, Deferred Inflows of Resources, and Net Position	\$ 31,743,746	\$ 32,521,124			

See accompanying notes to financial statements.

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2018 AND 2017

	 2018	2017
Operating Revenues:		
Sewer rentals	\$ 7,103,812	\$ 7,224,570
Operating Expenses:		
Sewer system operation	3,898,128	3,809,100
Purchased sewer treatment	635,769	668,502
Depreciation and amortization	1,201,970	1,147,395
Bad debt expense	 1,000	 2,771
Total operating expenses	 5,736,867	5,627,768
Operating Income	 1,366,945	 1,596,802
Nonoperating Revenues (Expenses):		
Interest income	101,485	111,428
Other revenue	90,278	100,896
Interest on sewer revenue bonds and notes payable	(1,110,939)	(1,139,548)
Amortization of bond premium	(49,595)	(53,954)
Realized loss on investments	(6,925)	(53,023)
Unrealized gain (loss) on investments	 4,567	 20,487
Total nonoperating revenues (expenses)	 (971,129)	(1,013,714)
Income (Loss) Before Capital Contribution Revenues	 395,816	583,088
Capital Contribution Revenues:		
Tap-in fees	 11,000	 16,250
Change in Net Position	406,816	599,338
Net Position:		
Beginning of year, 1/1/17	-	(59,532)
Beginning of year, as restated, 1/1/18	 228,459	 -
End of year	\$ 635,275	\$ 539,806

See accompanying notes to financial statements.

STATEMENTS OF CASH FLOWS

YEARS ENDED DECEMBER 31, 2018 AND 2017

		2018	2017
Cash Flows From Operating Activities:			
Cash received from customers	\$	7,213,699	\$ 7,092,111
Cash payments for operating expenses		(4,612,280)	 (4,707,220)
Net cash provided by (used in) operating activities		2,601,419	 2,384,891
Cash Flows From Noncapital Financing Activities:			
Other		101,278	 117,146
Net cash provided by (used in) noncapital financing activities		101,278	 117,146
Cash Flows From Capital and Related Financing Activities:			
Interest paid on debt		(1,124,855)	(1,149,837)
Interest received on restricted bond funds		101,485	111,428
Capital assets and related purchases		(899,767)	(2,586,438)
Payment of notes payable		(15,311)	(14,870)
Payment of bond principal		(1,195,000)	 (1,170,000)
Net cash provided by (used in) capital and related financing activities		(3,133,448)	 (4,809,717)
Cash Flows From Investing Activities:			
Sale of investments		675,517	2,421,730
Interest earned		(5,970)	27,762
Net cash provided by (used in) investing activities		669,547	 2,449,492
Increase (Decrease) in Cash and Cash Equivalents		238,796	141,812
Cash and Cash Equivalents:			
Beginning of year	· 	2,625,387	 2,483,575
End of year	\$	2,864,183	\$ 2,625,387
Reconciliation of Operating Income (Loss) to Net Cash			
Provided by (Used in) Operating Activities:			
Operating income	\$	1,366,945	\$ 1,596,802
Adjustments to reconcile operating income to net cash			
provided by (used in) operating activities:			
Depreciation and amortization		1,201,970	1,147,395
Bad debt expense		1,000	2,771
Accounts receivable		97,520	(133,132)
Prepaid expenses		(9,136)	3,232
Deferred outflows of resources related to pension		(144,017)	(25,828)
Deferred outflows of resources related to OPEB		(17,110)	-
Accounts payable		3,304	(121,512)
Accrued payroll and withholdings		5,528	6,830
Accrued compensated absences		28,044	7,137
Total OPEB liability		33,023	-
Net pension liability		10,778	(310,355)
Deferred inflows of resources related to pension		23,570	211,551
Net cash provided by (used in) operating activities	\$	2,601,419	\$ 2,384,891
			

See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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. 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.

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, 2018 AND 2017

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 \$1,000 and \$2,771 for 2018 and 2017, respectively.

Unamortized Premiums

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

<u>Deferred Outflows/Inflows of Resources</u>

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, 2018 AND 2017

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.

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. 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.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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 \$363,172 and \$335,128 for 2018 and 2017, 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. 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.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

- 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.
- 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

GASB Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions," improves accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. The provisions of this statement have been adopted and incorporated into these financial statements. As a result of this implementation, the Authority's net position as of January 1, 2018 has been restated by \$311,347. Information to restate balances for the year ended December 31, 2017 was unavailable. As permitted, beginning balances for deferred

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

outflows of resources related to OPEBs, other than those related to contributions made subsequent to the measurement date, are not reported.

Pending Pronouncements

GASB has issued statements that will become effective in future years, including Statements 83 (Certain Asset Retirement Obligations), 84 (Fiduciary Activities), 87 (Leases), 88 (Certain Debt Disclosures), 89 (Accounting for Interest Cost Incurred before the End of a Construction Period), and 90 (Majority Equity Interests – an amendment to GASB No. 14 and No. 61). 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, 2018 and 2017, 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, 2018 and 2017, respectively, \$2,053,605 and \$1,964,637 of the Authority's bank balance of \$2,303,605 and \$2,214,637 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 collateral held by an approved custodian in the institution's name. These deposits have

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

a carrying amount of \$2,298,253 and \$2,168,618 as of December 31, 2018 and 2017, respectively, all of which is reported as current assets in the statements of net position.

In addition to the deposit noted above, included in cash and cash equivalents on the statements of net position are investments with the Pennsylvania Local Government Investment Trust (PLGIT) of \$564,897 and \$455,754 for 2018 and 2017, 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 \$129,079 and \$127,236 for 2018 and 2017, respectively, have no minimum initial investment requirement and have a minimum investment period of one day. The Authority's investments in PLGIT-Prime of \$435,818 and \$328,518 for 2018 and 2017, 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.

In addition to the deposits noted above, included in cash and cash equivalents on the statements of net position are short-term investments with the external investment pool (INVEST) of \$1,033 and \$1,015 in 2018 and 2017, 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, 2018, the Authority held the following investment balances:

		Maturity in Years								
	Fair	Less than	1-5	6-10	More than					
	Market Value	1 year	Years	Years	10 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	\$ 1,502,734	\$ 499,955	\$ 657,366	\$ 313,949					

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

At December 31, 2017, the Authority held the following investment balances:

		Maturity in Years								
	Fair	Less than	1-5	6-10	More than					
	Market Value	1 year	Years	Years	10 years					
Money markets	\$ 1,876,454	\$ 1,876,454	\$ -	\$ -	\$ -					
Private debt obligations	657,366	-	-	-	657,366					
Municipal bonds	-	-	-	-	-					
U.S. agencies	1,104,320	1,104,320								
Total	\$ 3,638,140	\$ 2,980,774	\$ -	\$ -	\$ 657,366					

Investments of \$2,974,004 at December 31, 2018 and \$3,638,140 at December 31, 2017 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 \$204 were rated Aaa and Institutional Class #1751 money market funds of \$402,854 were rated Aaa-mf. The guarantor of the private debt obligation of \$657,366 is a company with a AAA rating at December 31, 2018.

As of December 31, 2017, the Authority's Treasury Instruments Fund #506 money market funds of \$2,638 were rated Aaa, Institutional Class #1751 money market funds of \$1,873,815 were rated Aaa-mf. The guarantor of the private debt obligation of \$657,366 is a company with a AAA rating at December 31, 2017.

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, 2018 and 2017.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

These investments are 22% and 18% of the Authority's total investments at December 31, 2018 and 2017, respectively.

The Authority has the following recurring 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	

The Authority has the following fair value measurements as of December 31, 2017:

	 Level 1	Level 2		vel 2 Level 3		 Total
Money markets	\$ 1,876,454	\$	-	\$	-	\$ 1,876,454
Private debt obligations	-		-		657,366	657,366
Municipal bonds	-		-		-	-
U.S. agencies	 		1,104,320		-	1,104,320
	\$ 1,876,454	\$	1,104,320	\$	657,366	\$ 3,638,140

Money markets classified in Level 1 of the fair value hierarchy at December 31, 2018 and 2017 are valued using prices quoted in active markets for those securities. Municipal bonds and U.S. agencies classified in Level 2 of the fair value hierarchy December 31, 2018 and 2017 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, 2018 and 2017 are valued based on the underlying assets of the collateralized trust held by the guarantor of the private debt obligation.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

4. Capital Assets

A summary of changes in capital assets is as follows:

	Balance at December 31, 2017	Additions	Transfers/ Deletions	Balance at December 31, 2018
Capital assets, not being depreciated:				
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
Total capital assets, net	\$ 22,859,974	\$ (312,062)	\$ -	\$ 22,547,912
	Balance at December 31, 2016	Additions	Transfers/ Deletions	Balance at December 31, 2017
Capital assets, not being depreciated:				
Construction in progress	\$ 518,967	\$ 2,372,505	\$ (1,870,897)	\$ 1,020,575
Capital assets, being depreciated:				
Plant and system	32,731,892	77,874	1,821,897	34,631,663
Vehicles and equipment	932,670	44,962	49,000	1,026,632
Other capital improvements	1,816,405			1,816,405
Total capital assets, being depreciated	35,480,967	122,836	1,870,897	37,474,700
Less accumulated depreciation	(14,507,857)	(1,127,444)		(15,635,301)
Total capital assets, being depreciated, net	20,973,110	(1,004,608)	1,870,897	21,839,399
Total capital assets, net	\$ 21,492,077	\$ 1,367,897	\$ -	\$ 22,859,974

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

5. Long-Term Debt

Balance

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

Due Within

Balance

	December 31, 2017	New Issues	 Payments	Re	efunded	Deceml	per 31, 2018	One Year
Bonds Payable	\$ 28,985,000	\$ -	\$ 1,195,000	\$	_	\$	27,790,000	\$ 1,225,000
						At Dece	mber 31st 201	7
annual pr	venue Bonds, Refu incipal installmen through August 1	its or mandato	•		\$ 19,4	00,000	\$ 19,875	5,000
annual pr	venue Bonds, Ref incipal installmen through August 1	its or mandato	•		8,3	90,000	9,110	0,000
					27,7	90,000	28,985	5,000
Less:	current portion				(1,2	25,000)	(1,195	5,000)
Total	bonds payable - lo	ong-term			\$ 26,5	65,000	\$ 27,790	0,000

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 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.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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.

Sewer Revenue Bonds, Series of 2009

On September 15, 2009, the Authority issued \$29,320,000 of Sewer Revenue Bonds, Refunding Series of 2009 (2009 Bonds), bearing interest rates ranging from 2% to 4.625%. The proceeds of the 2009 Bonds were used to currently refund all of the outstanding Sewer Revenue Bonds, Series of 1998 in the amount of \$27,985,000. As noted above, \$8,765,000 was currently refunded with the issuance of the 2016 Bonds and \$14,360,000 of the 2009 Bonds was advance refunded with the issuance of the 2014 A Bonds. At December 31, 2018, none of the defeased 2009 Bonds remains outstanding.

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. In 2018 and 2017, 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, 2018 AND 2017

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

December 31,	 Principal	 Interest	 Total
2019	\$ 1,225,000	\$ 1,088,669	\$ 2,313,669
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
2024-2028	7,955,000	3,604,881	11,559,881
2029-2033	9,650,000	1,917,100	11,567,100
2034-2035	 3,550,000	 197,200	 3,747,200
	\$ 27,790,000	\$ 10,654,226	\$ 38,444,226

Current interest notes payable at December 31, 2018 are composed of the following:

		Balance								Balance
	Decen	nber 31, 2017	New	New Loans Payments		Refunded Dec		Decen	nber 31, 2018	
PWSA loan	\$	100,609	\$		\$	15,311	\$		\$	85,298

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 \$85,298 and \$100,609 at December 31, 2018 and 2017, respectively.

The following summarizes the required payments for the PWSA loan:

December 31,	Principal		Interest		Total	
2019	\$ 15,778	\$	2,320	\$	18,098	
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	 1,511		4		1,515	
	\$ 85,298	\$	6,706	\$	92,004	

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

At December 31, 2018, the PWSA loan is presented as notes payable on the statement of net position in the amount of \$69,520 (long-term) and \$15,778 (short-term). At December 31, 2017, the PWSA loan is presented as notes payable on the statement of net position in the amount of \$85,292 (long-term) and \$15,317 (short-term).

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. 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.

At December 31, 2018, plan membership consisted of the following:

Active	15
In payment status:	
Retirement benefits	14
Disability benefits	0
Surviving spouse benefits	0
Deferred	5
Total	34

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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 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 2018, the Authority paid the calculated MMO of \$168,085 into the plan. During 2017, the Authority paid the calculated MMO of \$168,634 into the plan.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

Net Pension Liability

Measurement Date and Actuarial Assumptions – The Authority's net pension liability was measured as of December 31, 2018, and the total pension liability used to calculate the net pension liability was determined by actuarial valuations as of December 31, 2018.

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 norma

Actuarial assumptions:

Investment rate of return 6.25% Projected salary increases 3.50% Underlying inflation rate 2.50%

RP-2006 (Blue Collar, MP-2017) Mortality Table

Changes in Actuarial Assumptions – Changes were made to the actuarial assumptions used in the December 31, 2018 valuation since the previous actuarial valuation on January 1, 2017. The changes include a decrease in the underlying inflation rate from 3.00% to 2.50%. These changes resulted in an increase in the net pension liability of \$14,202.

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 6.25% 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

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The following were the asset allocation policy and best estimates of arithmetic real rates of return for each major asset class included in the plan's target asset allocations as of December 31, 2018 and 2017:

		Long-Term Expected
Asset Class	Target Allocation	Rate of Return
Domestic Equities	45%	7.47%
International Equities	5%	1.69%
Fixed Income	45%	3.60%
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, 2018 and 2017, the annual money-weighted rate of return on the plan investments, net of investment expense, was (2.82)% and 13.05%, respectively.

Concentrations – The plan had no investment concentrations at December 31, 2018 or 2017.

Discount Rate – The discount rate used to measure the total pension liability for the plan was 6.25%. 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.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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

		otal Pension Liability	Plan Net Position		Net 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
	Tot	cal Pension			N	let Pension
		Liability	Plan	Net Position		Liability
Balances at 12/31/16	\$	3,011,034	\$	2,333,723	\$	677,311
Changes for the year:						
Service cost		27,752		-		27,752
Interest		191,399		-		191,399
Employer contributions		-		168,634		(168,634)
Member contributions		-		6,720		(6,720)
Net investment income (loss)		-		301,267		(301,267)
Change of assumptions		71,010		-		71,010
Benefits payments, including refunds						
of employee contributions		(172,829)		(172,829)		-
Differences between expected and						
actual experience		(126,698)		-		(126,698)
Other changes		-		772		(772)
Administrative expenses		-		(3,575)		3,575
Balances 12/31/17	\$	3,001,668	\$	2,634,712	\$	366,956

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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%	1% Decrease		Discount Rate		Increase
		(5.25%)		(6.25%)		(7.25%)
Pension Plan	\$	693,755	\$	377,734	\$	109,306

Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions – For the years ended December 31, 2018 and 2017, the Authority recognized pension expense of \$58,416 and \$43,230, respectively. At December 31, 2018, the Authority reported deferred outflows and inflows of resources related to pensions from the following sources:

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

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

At December 31, 2017, the Authority reported deferred outflows and inflows of resources related to pensions from the following sources:

	Defe	Deferred Outflows		red Inflows of
	of	Resources	R	esources
Differences between expected and				
actual experience	\$	-	\$	148,270
Change of assumptions		56,808		-
Net difference between projected and				
actual earnings on pension plan				
investments		61,958		124,122
	\$	118,766	\$	272,392

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:	_	
2019	\$	(3,361)
2020		(34,338)
2021		(33,380)
2022		37,987
2023		(87)
	\$	(33,179)

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.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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.

The following disclosures are presented for 2018 only as they correlate to the adoption of GASB Statement No. 75. As permitted by GASB No 75, the Authority deemed it not practical to recompute the January 1, 2017 and December 31, 2017 financial statement impact of GASB No. 75, so the 2017 financial statements still reflect the GASB No. 45 accounting for OPEBs. For December 31, 2017, the accrued OPEB liability as computed under GASB No. 45 was \$0.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

Employees Covered by Benefit Terms

As of January 1, 2018, the date of the most recent actuarial valuation, 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 \$344,370 was measured as of December 31, 2017 and was determined by an actuarial valuation as of January 1, 2018.

Actuarial Assumptions

Actuarial funding method

The total OPEB liability was determined by an actuarial valuation as of January 1, 2018 using the following actuarial assumptions, applied to all periods including the measurement:

Entry Age Normal, level % of pay

Accountant and meeting	= /go / / / / pu/
Amortization of unfunded accrued liability	30 year open from valuation date level dollar using valuation discount rate
Salary increases	3.50%
Discount rate	3.44% per year
Healthcare cost trend rates	5.10% for 2018; 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

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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.

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

	 otal OPEB Liability
Balance at January 1, 2018	\$ 311,347
Changes for the year:	
Service cost	22,313
Interest	10,710
Changes of benefit terms	-
Differences between expected and actual experience	-
Benefit payments	
Net changes	33,023
Balance at December 31, 2018	\$ 344,370

There were no changes of benefit terms.

There were no changes of actuarial assumptions.

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, 2018:

	1%	1% Decrease Discount R		count Rate	1%	Increase		
		(2.44%)	(3.44%)			(4.44%)		
Total OPEB liability	\$	370,406	\$	344,370	\$	320,741		

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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 rates that are one-percentage-point lower or one-percentage-point higher than the current healthcare cost trend rates as of December 31, 2018:

	1% Decrease (4.10%)		_	count Rate (5.10%)	1% Increase (6.10%)		
Total OPEB liability	\$	316,456	\$	344,370	\$	377,115	

<u>OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources</u> Related to OPEB

For the year ended December 31, 2018, the Authority recognized OPEB expense of \$33,023. At December 31, 2018, the Authority did not have any deferred inflows of resources related to OPEB. The Authority reported deferred outflows of resources of \$17,110 related to OPEB contributions made after the valuation date.

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.

At December 31, 2018, 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.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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.

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.

Commitments

The Authority had approximately \$265,840 of construction commitments related to construction of the sewer system at December 31, 2018.

NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2018 AND 2017

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.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

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

Last 10 Fiscal Years¹

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

See accompanying notes to the supplementary schedules.

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF AUTHORITY'S CONTRIBUTIONS

FOR THE YEARS ENDING DECEMBER 31, 2009 - DECEMBER 31, 2018

Schedule of Authority's Contributions	2	2018 2017		2016		2015		2014	
Actuarially determined contribution Contributions in relation to the actuarially determined contribution		168,085 168,085	\$	168,634 168,634	\$ 194,661 194,661	\$	188,271 188,271	\$	157,102 157,102
Contribution deficiency (excess)	\$		\$	_	\$ 	\$		\$	
Covered payroll	\$ 1,	,155,407	\$	1,347,313	\$ 1,666,172	\$	1,496,897	\$	1,385,242
Contributions as a percentage of covered payroll	14	1.55%		12.52%	11.68%		12.58%		11.34%
Schedule of Authority's Contributions	2	2013		2012	2011		2010		2009
Actuarially determined contribution Contributions in relation to the actuarially determined contribution		159,449 159,449	\$	110,505 110,505	\$ 108,787 108,787	\$	97,471 103,379	\$	84,408 91,579
Contribution deficiency (excess)	\$		\$		\$ 	\$	(5,908)	\$	(7,171)
Covered payroll	\$ 1,	,526,418	\$	1,544,179	\$ 1,614,210	\$	1,702,266	\$	1,603,361
Contributions as a percentage of covered payroll	10).45%		7.16%	6.74%		6.07%		5.71%

See accompanying notes to the supplementary schedules.

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF AUTHORITY'S INVESTMENT RETURNS

Last 10 Fiscal Years¹

	2018	2017	2016	2015
Investment Returns	_			
Annual money-weighted rate of return, net of investment expense	-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.

See accompanying notes to the supplementary schedules.

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

YEAR ENDED DECEMBER 31 LAST 10 FISCAL YEARS*

	 2018
Total OPEB Liability:	
Service cost	\$ 22,313
Interest	10,710
Changes of benefit terms	-
Differences between expected and actual experiences	-
Changes of assumptions	-
Benefit payments	
Net Change in Total OPEB Liability	33,023
Total OPEB Liability - Beginning	 311,347
Total OPEB Liability - Ending	\$ 344,370

^{*} 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 THE SUPPLEMENTARY SCHEDULES

YEAR ENDED DECEMBER 31, 2018

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

The information presented in the required supplementary 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 12/31/2018

Actuarial cost method Entry Age

Normal

Amortization method Level Dollar

Closed

Remaining amortization period 4 years

Asset valuation method 3-Year Smoothing

Actuarial assumptions:

Investment rate of return 6.25%
Projected salary increases 3.50%
Underlying inflation rate 2.50%

Pre- and Post-Mortality

Assumptions: RP-2006, Blue Collar

Retirement age Normal Retirement Age

Benefit Changes - Pension

No benefit terms were modified.

<u>Changes in Actuarial Assumptions - Pension</u>

Changes were made to the actuarial assumptions used in the December 31, 2018 valuation since the previous actuarial valuation on January 1, 2017. These changes include a decrease in the underlying inflation rate from 3.00% to 2.50%.

NOTES TO THE SUPPLEMENTARY SCHEDULES

YEAR ENDED DECEMBER 31, 2018

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 3.44% per year

Healthcare cost trend rates 5.10% for 2018; 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

No changes in actuarial assumptions.

SUPPLEMENTARY INFORMATION

ANALYSIS OF OPERATING REVENUES AND EXPENSES

YEARS ENDED DECEMBER 31, 2018 AND 2017

	2018	2017		
Operating Revenues:			_	
Sewage rentals	\$ 7,103,812	\$	7,224,570	
Operating Expenses:				
Sewer system operation:				
Sewage treatment plants	\$ 441,805	\$	379,985	
Utilities	462,904		389,277	
Sewer crew expenses	31,070		28,436	
Pretreatment expenses	13,103		12,765	
Payroll	1,674,982		1,641,889	
Payroll taxes	130,879		137,188	
Benefits	612,230		635,160	
Office supplies	20,627		22,742	
Communications	20,777		21,133	
Postage	1,042		1,409	
Advertisements	969		769	
Fee collection costs	205,721		258,624	
Engineering fees	24,855		29,319	
Insurance	141,051		174,674	
Professional services	71,844		55,146	
Miscellaneous expenses	44,269		20,584	
Purchased sewer treatment	635,769		668,502	
Depreciation	1,201,970		1,147,395	
Bad debt expense	 1,000		2,771	
Total operating expenses	\$ 5,736,867	\$	5,627,768	