ERIE COUNTY WATER AUTHORITY

Basic Financial Statements and Required Supplementary Information for the Years Ended December 31, 2019 and 2018 and Independent Auditors' Reports

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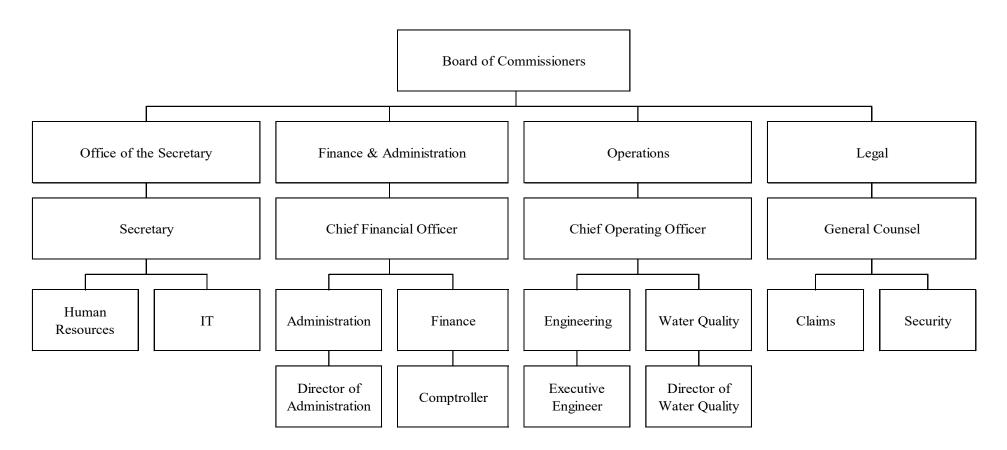
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ERIE COUNTY WATER AUTHORITY Members of the Board of Commissioners

Members of the Board of the Erie County Water Authority are appointed by the Chairman of the Erie County Legislature upon receiving nominations from the majority of the Majority Caucus or the Minority Caucus, subject to confirmation by a majority of the Legislature. Each Member is appointed to a three year term; and, not more than two members of the Authority's Board of Commissioners, at any time, shall belong to the same political party.

Board Members on 12/31/2019	Most Recent <u>Appointment Date</u>
Jerome D. Schad, Chairman	2019
Mark S. Carney, Vice Chairman	2018
E. Thomas Jones, Treasurer	2018

ERIE COUNTY WATER AUTHORITY Organizational Chart



INDEPENDENT AUDITORS' REPORT

The Board of Commissioners Erie County Water Authority

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities of the Erie County Water Authority (the "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

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

Auditor's Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the 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.

Opinions

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

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and other Required Supplementary Information, as listed in the table of contents, 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 Reporting Required by Government Auditing Standards

In accordance with *Governmental Auditing Standards*, we have also issued our report dated March 24, 2020 on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

Report on Other Legal and Regulatory Requirements

We have also issued our report dated March 24, 2020 on our consideration of the Authority's compliance with Section 2925(3)(f) of the New York State Public Authorities Law ("Law"). The purpose of that report is to describe the scope and results of our tests of compliance with the Law.

March 24, 2020

ERIE COUNTY WATER AUTHORITY Management's Discussion and Analysis For the Years Ended December 31, 2019 and 2018

Management provides the following discussion and analysis ("MD&A") of the Erie County Water Authority's (the "Authority") financial activities and statements for the years ended December 31, 2019 and 2018. The information contained in this analysis should be used by the reader in conjunction with the information contained in the audited financial statements and the notes to those financial statements, all of which follow this narrative on the subsequent pages. The Authority is not required to legally adopt a budget; therefore, comparative budgetary information is not included in this report. For comparative purposes, certain items from the prior year have been reclassified to conform with the current year presentation.

Financial Highlights

- The Authority's net position increased \$19,806,754 as a result of activity for the year ended December 31, 2019. Net income represents \$18,374,800 of the 2019 increase. The remaining increase of \$1,431,954 resulted from capital contributions (contributions in aid of construction). The Authority's net position increased \$18,251,049 as a result of activity for the year ended December 31, 2018. Net income represents \$17,138,048 of the 2018 increase. The remaining increase of \$1,113,001 resulted from capital contributions (contributions in aid of construction).
- The assets and deferred outflows of resources of the Authority exceeded its liabilities and deferred inflows of resources by \$335,949,809 and \$316,143,055 representing net position at December 31, 2019 and 2018, respectively.
- The Authority's bonded indebtedness, including related bond premiums and discounts, decreased \$4,517,626 in 2019, compared to an increase of \$18,059,540 in 2018. The decrease resulted from principal payments of \$4,205,000, including the final payment on the 1998D Series Bonds, and \$312,626 of premium and discount amortization. The net increase in 2018, including related bond premiums and discounts, resulted from the issuance of the 2018 Series Bonds in July of 2018. The principal amount of the issue is \$24,900,000 with premiums of \$3,089,043 and discounts of \$22,969. The issuance was offset by decreases resulting from \$9,380,000 in principal payments and \$526,534 net effect of premium and discount amortization.

Overview of the Financial Statements

This discussion and analysis are intended to serve as an introduction to the Authority's basic financial statements. The financial statements are organized as follows:

- The *Statement of Net Position* presents information on 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 or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.
- The *Statement of Revenue, Expenses, and Changes in Net Position* presents information showing how the Authority's net position changed during the most recent reporting period. All changes in net position are reported as soon as the underlying event

giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will result in cash flows in future periods (e.g., earned but unbilled revenue and earned but unused vacation leave).

- The *Statement of Cash Flows* presents information depicting the Authority's cash flow activities for the most recent reporting period and the effect that these activities had on the Authority's cash and cash equivalent balances.
- The *Notes to Financial Statements* present additional information that is essential to a full understanding of the data provided in the financial statements. The notes to the financial statements can be found following the financial statements section of this report.

Financial Analysis

As noted earlier, net position may over time serve as a useful indicator of an entity's financial position. In the case of the Authority, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$335,949,809 at December 31, 2019 compared to \$316,143,055 at December 31, 2018, as presented below in Table 1:

Table 1—Condensed Statement of Net Position

	December 31,		Increase/(Decrease)		
	2019	2018	Dollars	Percent	
Current assets	\$ 81,908,325	\$ 59,100,141	\$ 22,808,184	38.6	
Noncurrent assets:					
Other noncurrent assets	33,881,016	46,549,173	(12,668,157)	(27.2)	
Capital assets	399,107,598	392,868,668	6,238,930	1.6	
Total assets	514,896,939	498,517,982	16,378,957	3.3	
Deferred outflows of resources	13,176,036	7,813,239	5,362,797	68.6	
Current liabilities	14,981,315	16,896,255	(1,914,940)	(11.3)	
Noncurrent liabilities	154,418,631	155,042,743	(624,112)	(0.4)	
Total liabilities	169,399,946	171,938,998	(2,539,052)	(1.5)	
Deferred inflows of resources	22,723,220	18,249,168	4,474,052	24.5	
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Net investment in					
capital assets	346,950,326	348,212,701	(1,262,375)	(0.4)	
Restricted	1,839,753	3,388,454	(1,548,701)	(45.7)	
Unrestricted	(12,840,270)	(35,458,100)	22,617,830	(63.8)	
Total net position	\$ 335,949,809	\$ 316,143,055	\$ 19,806,754	6.3	

(continued)

Table 1—Condensed Statements of Net Position

(concluded)

	Decem	ber 31,	Increase/(Decrease)		
	2018	2017	Dollars	Percent	
Current assets	\$ 59,100,141	\$ 46,299,755	\$ 12,800,386	27.6	
Noncurrent assets:					
Other noncurrent assets	46,549,173	30,403,535	16,145,638	53.1	
Capital assets	392,868,668	380,221,994	12,646,674	3.3	
Total assets	498,517,982	456,925,284	41,592,698	9.1	
Deferred outflows of resources	7,813,239	6,316,419	1,496,820	23.7	
Current liabilities	16,896,255	20,914,751	(4,018,496)	(19.2)	
Noncurrent liabilities*	155,042,743	143,611,384	11,431,359	8.0	
Total liabilities	171,938,998	164,526,135	7,412,863	4.5	
Deferred inflows of resources	18,249,168	823,562	17,425,606	2,115.9	
Deferred millows of resources	10,249,100	025,502	17,425,000	2,115.9	
Net investment in					
capital assets	348,212,701	332,979,635	15,233,066	4.6	
Restricted	3,388,454	8,375,301	(4,986,847)	(59.5)	
Unrestricted*	(35,458,100)	(43,462,930)	8,004,830	(18.4)	
Total net position	\$ 316,143,055	\$ 297,892,006	\$ 18,251,049	6.1	

* During the year ended December 31, 2018, the Authority implemented GASB Statement No. 75, noncurrent liabilities and unrestricted net position at December 31, 2017 have been updated to reflect this implementation.

At December 31, 2019, the largest portion of the Authority's net position, \$346,950,326, consists of the Authority's investment in capital assets. This amount is presented net of any outstanding debt which was used to acquire such capital assets.

The Authority's liabilities totaled \$169,399,946, \$171,938,998, and \$164,526,135, at December 31, 2019, 2018, and 2017, respectively. The largest component of liabilities in 2019, 2018, and 2017 is other postemployment benefits ("OPEB").

The Authority had current ratios of 5.47, 3.50, and 2.21 at December 31, 2019, 2018, and 2017, respectively. Such a ratio implies that the Authority has sufficient assets on hand to cover its liabilities that will come due in the ensuing year.

A comparison of current assets as compared to current liabilities of the Authority at December 31, 2019, 2018, and 2017 follows:

Table 2—Comparison of Current Assets and Current Liabilities

		December 31,				
	2019	2018	2017			
Current assets	\$ 81,908,325	\$ 59,100,141	\$ 46,299,755			
Current liabilities	14,981,315	16,896,255	20,914,751			
Ratio of current assets to						
current liabilities	5.47	3.50	2.21			

Table 3 shows the changes in net position for the years ended December 31, 2019, 2018, and 2017:

Table 3—Changes in Net Position

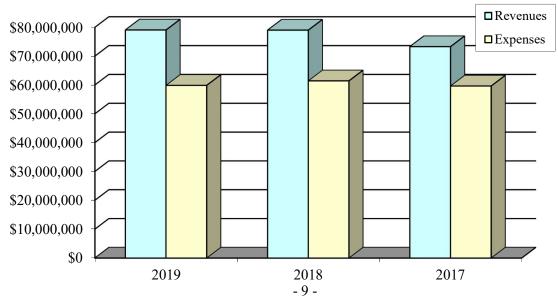
	Year Ended December 31,				
		2019		2018	
Operating revenues	\$	79,062,911	\$	79,010,108	
Operating expenses:					
Operation and administration		27,374,920		28,496,565	
Maintenance		15,229,823		15,212,914	
Depreciation		13,906,284		13,038,530	
Other postemployment benefit expense		3,344,867		4,669,997	
Total operating expenses		59,855,894		61,418,006	
Operating income		19,207,017		17,592,102	
Nonoperating revenues (expenses):					
Interest income on investments		1,265,180		1,006,077	
Interest on loans receivable		82,672		86,443	
Interest capitalization during construction		-		145,112	
Interest expense		(2,180,069)		(1,691,686)	
Total nonoperating revenues (expenses)		(832,217)		(454,054)	
Net income before contributions in aid of construction		18,374,800		17,138,048	
Contributions in aid of construction		1,431,954		1,113,001	
Change in net position		19,806,754		18,251,049	
Total net position—beginning of year		316,143,055		297,892,006	
Total net position—end of year	\$	335,949,809	\$	316,143,055	

(concluded)

(concluded)

	Year Ended December 31,			
	2018 2017			2017
Operating revenues	\$	79,010,108	\$	73,291,512
Operating expenses:				
Operation and administration		28,496,565		27,918,914
Maintenance		15,212,914		13,770,443
Depreciation		13,038,530		12,823,738
Other postemployment benefit expense		4,669,997		5,118,264
Total operating expenses		61,418,006		59,631,359
Operating income		17,592,102		13,660,153
Nonoperating revenues (expenses):				
Interest income on investments		1,006,077		434,340
Interest on loans receivable		86,443		90,084
Interest capitalization during construction		145,112		151,474
Interest expense		(1,691,686)		(1,551,606)
Total nonoperating revenues (expenses)		(454,054)		(875,708)
Net income before contributions in aid of construction		17,138,048		12,784,445
Contributions in aid of construction		1,113,001		1,628,369
Change in net position		18,251,049		14,412,814
Total net position—beginning of year		297,892,006		344,255,257
GASB Statement No. 75 implementation		-		(60,776,065)
Total net position—end of year	\$	316,143,055	\$	297,892,006

The following chart depicts a .07% increase in operating revenue from \$79,010,108 in 2018 to \$79,062,911 in 2019 compared to a 7.8% increase from \$73,291,512 in 2017 to \$79,010,108 in 2018. Operating expenses decreased 2.5% from \$61,418,006 in 2018 to \$59,855,894 in 2019 compared to a 3.0% increase from \$59,631,359 in 2017 to \$61,418,006 in 2018.



Comparison of Operating Revenues and Expenses

A summary of operating revenues for the years ended December 31, 2019, 2018, and 2017 is presented below in Table 4:

Table 4—Summary of Operating Revenues

	Year Ended December 31,		Increase/(Decrease)		ecrease)	
		2019	 2018		Dollars	Percent
Water sales:						
Residential	\$	38,008,741	\$ 38,757,174	\$	(748,433)	(1.9)
Commercial		8,028,503	8,087,910		(59,407)	(0.7)
Industrial		2,322,603	2,120,799		201,804	9.5
Public authorities		2,591,717	2,553,389		38,328	1.5
Fire protection		4,436,491	4,396,402		40,089	0.9
Sales to other utilities		4,107,991	4,265,708		(157,717)	(3.7)
Infrastructure investment charg		16,842,861	15,479,723		1,363,138	8.8
Other water sales		1,378,241	 1,368,416		9,825	0.7
Total water sales		77,717,148	77,029,521		687,627	0.9
Other operating revenues:						
Rents from water towers		537,274	529,015		8,259	1.6
Miscellaneous		808,489	 1,451,572		(643,083)	(44.3)
Operating revenues	\$	79,062,911	\$ 79,010,108	\$	52,803	0.1

	Year Ended December 31,		Increase/(Decrease)		Decrease)	
		2018	 2017		Dollars	Percent
Water sales:						
Residential	\$	38,757,174	\$ 36,925,206	\$	1,831,968	5.0
Commercial		8,087,910	7,577,863		510,047	6.7
Industrial		2,120,799	1,957,186		163,613	8.4
Public authorities		2,553,389	2,438,488		114,901	4.7
Fire protection		4,396,402	4,366,663		29,739	0.7
Sales to other utilities		4,265,708	3,940,896		324,812	8.2
Infrastructure investment charg		15,479,723	14,186,008		1,293,715	9.1
Other water sales		1,368,416	 1,348,055		20,361	1.5
Total water sales		77,029,521	72,740,365		4,289,156	5.9
Other operating revenues:						
Rents from water towers		529,015	505,662		23,353	4.6
Miscellaneous		1,451,572	 45,485		1,406,087	3,091.3
Operating revenues	\$	79,010,108	\$ 73,291,512	\$	5,718,596	7.8

Water sales represent most of the revenue for the Authority, 98.3%, 97.5%, and 99.2% for the years ended December 31, 2019, 2018, and 2017, respectively.

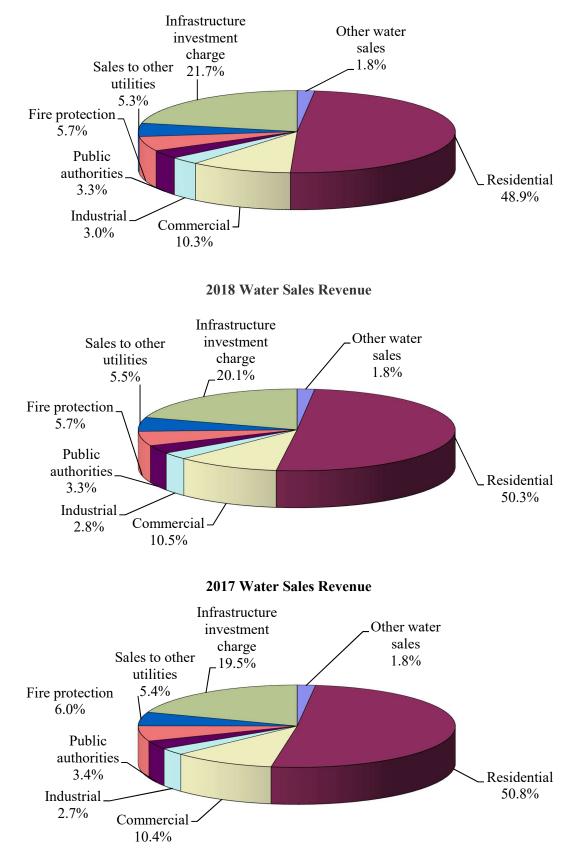
Following are some of the issues and events affecting operating revenue in 2019:

- > Total water sales increased 0.9%, due to the following rate changes:
 - ✓ Despite volumetric rate increases of 2% across all customer classes effective January 1, 2019, total metered water sales decreased 1.1%, or \$675,511 due to a 4% decrease in billed consumption in 2019, compared to 2018. Billed consumption of 16,339.8 MG in 2019 is slightly lower than the five-year average of 16,842.9 MG, compared to billed consumption in 2018 of 17,023.0 MG which was higher than the five-year average.
 - ✓ Revenue from infrastructure investment charges increased 8.8%, \$1,363,138, due to the continued implementation of the 2016 rate study which recommended higher charges on accounts with larger meter sizes. 2019 is the final year of a three-year phase-in of the recommended rates.
- Miscellaneous operating revenue decreased \$643,083 due to a 2018 insurance recovery of \$1,369,179 from a forty-two (42) inch main failure at the Sturgeon Point water treatment plant, offset by \$774,397 reimbursement for tank refurbishments in lease managed towns in 2019.

Comparatively, these issues and events impacted revenue in 2018:

- > Total water sales increased 5.9%, due to the following rate changes:
 - ✓ Volumetric rates across all customer classes were raised 2.0% effective January 1, 2018. Coupled with a 4.0% increase in billed consumption, total metered water sales increased 5.1%, or \$2,995,441 more than metered sales in 2017.
 - ✓ Revenue from infrastructure investment charges increased 9.1% due to the continued implementation of a 2016 rate study, which recommended higher charges on accounts with larger meter sizes. 2018 is the second of a three-year phase-in of the recommended rates.
- Miscellaneous operating revenue increased significantly due to a \$1,369,179 insurance recovery from a forty-two (42) inch main failure at the Sturgeon Point water treatment plant in August of 2017.

As presented in the illustration on the following page, residential water sales represent the largest portion of water sales for the Authority, which was 48.9%, 50.3%, and 50.8%, of total water sales for the years ended December 31, 2019, 2018, and 2017, respectively. Infrastructure investment charges were the next largest revenue component at 21.7%, 20.1%, and 19.5% in the years ended December 31, 2019, 2018, and 2017, respectively.



2019 Water Sales Revenue

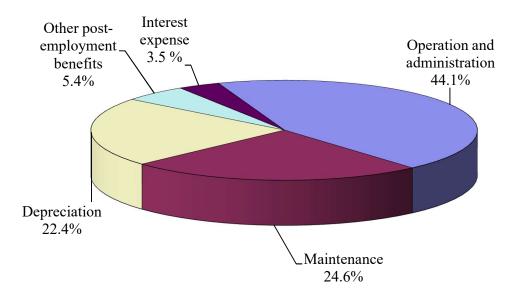
A summary of expenses for the years ended December 31, 2019, 2018, and 2017 is presented below in Table 5.

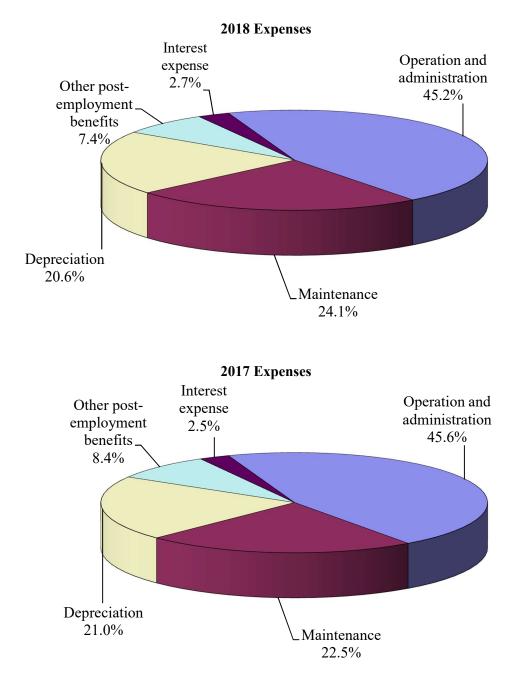
Table 5—Summary of Expenses

	Year Ended I	December 31,	Increase/(Decrease					
	2019	2018	Dollars	Percent				
Operation and administration	\$ 27,374,920	\$ 28,496,565	\$ (1,121,645)	(3.9)				
Maintenance	15,229,823	15,212,914	16,909	0.1				
Depreciation	13,906,284	13,038,530	867,754	6.7				
Interest expense	2,180,069	1,691,686	488,383	28.9				
Other postemployment benefits	3,344,867	4,669,997	(1,325,130)	(28.4)				
Total	\$ 62,035,963	\$ 63,109,692	\$ (1,073,729)	(1.7)				
	Year Ended December 31,		Year Ended December 31,		Year Ended December 31,		Increase/(D	ecrease)
	2018	2017	Dollars	Percent				
Operation and administration	\$ 28,496,565	\$ 27,918,914	\$ 577,651	2.1				
Maintenance	15,212,914	13,770,443	1,442,471	10.5				
Depreciation	13,038,530	12,823,738	214,792	1.7				
Interest expense	1,691,686	1,551,606	140,080	9.0				
Other postemployment benefits	4,669,997	5,118,264	(448,267)	(8.8)				
Total	\$ 63,109,692	<u>\$ 61,182,965</u>	\$ 1,926,727	3.1				

As illustrated below, operation and administration expenses are the largest expense and account for 44.1%, 45.2%, and 45.6%, of the Authority's expenses for the years ended December 31, 2019, 2018 and 2017, respectively. The second largest expense for the Authority for the years ended December 31, 2019, 2018, and 2017 was maintenance, which was 24.6%, 24.1%, and 22.5%, respectively.

2019 Expenses





Following are some of the issues and events affecting expenses in 2019:

- ➢ Fringe benefit charges decreased 16.4%, \$1,692,602, equally impacting operating and administrative, and maintenance expenses for the following reasons:
 - ✓ GASB Statement No. 75 implementation in 2018 resulted in a \$1,867,715 increase in compensated absences. Small increases in compensated absences in 2019 can be attributed to normal salary increases.
 - ✓ Health insurance costs decreased 14.9%, \$191,424, due to decreases in health and prescription claims paid for all active employees.

- Operating and administrative expenses decreased 3.9%, \$1,121,645 due to the fringe benefit decrease discussed above, and the following significant fluctuations:
 - ✓ Power costs decreased 14.9%, \$551,814 due to a 1.8% decrease in kilowatt hours used and a 18.7% decrease in the cost per kilowatt hour.
 - ✓ Corporate and fiscal expenses decreased \$242,896 due to costs associated with the issuance of the 2018 Series Bonds in July of 2018 and the final maturity of the 2008 Series Bonds in 2018, reducing trustee fees.
 - ✓ Payments to contractors decreased 12.9%, \$231,314 due largely to the expiration of a contract with a consultant engineering firm to provide design services for filter rehabilitation at the Sturgeon Point treatment plant.
 - ✓ Chemical costs increased 48.2%, \$410,964, due to contract renewals for caustic soda at the end of 2018 and polyaluminum chloride in June of 2019 – both with 30% price increases.
- Maintenance expenses declined slightly in 2019. Decreases in fringe benefit costs, previously discussed, were offset by increases in the following:
 - ✓ Materials and supplies increased \$116,514 due to the purchase of pressure and filter level transmitters at multiple tanks, pump stations and both water treatment plants. The purchase of electronic valve turners at both plants, and replacement pumps and valve repair kits at the Van DeWater treatment plant also contributed to the increase.
 - ✓ Payments to contractors for repairs increased 16.7%, \$239,721 due in part to new contracts for small service repairs which increased hourly repair rates in February 2019. Supplemental repair crews were used for several large transmission main repairs in 2019, increasing costs \$204,583.
 - ✓ Restoration costs also increased \$124,024 due to larger transmission main repairs in 2019, resulting in increased costs for removal of excavated material and general restoration services.
- Nonoperating expenses net of related revenues increased 83%, \$378,163, in 2019 due primarily to the following:
 - ✓ Interest income on investments increased \$259,103 as a result of general interest rate improvements.
 - ✓ Interest expense increased \$633,495 due to the payment of a full year of interest on the 2018 Series Bonds offset by the final maturity of the 2008 Series Bonds in 2018 and the early implementation of GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, effective for periods beginning after December 31, 2019. The total amount of interest cost capitalized in 2018 was \$145,112, no capitalization of interest occurred in 2019.
- Other postemployment benefit expense decreased 28.4%, \$1,325,130 due to a change in the Affordable Care Act repealing the high-cost plan tax and the health insurer fee.

Comparatively, these issues and events impacted expenses in 2018:

- Fringe benefit charges increased 30.5%, equally impacting operating and administrative, and maintenance expenses for the following reasons:
 - ✓ GASB Statement No. 75 classifies accrued sick time which can be used in retirement to make required health insurance premium contributions as compensated absences. Prior treatment under GASB Statement No. 45 included the accruals as OPEB expense; as a result, an adjustment of \$1,867,715 was made to total compensated absences in 2018.
 - ✓ Health insurance costs increased 32.3%, due to increases in minimum premiums across all policy types and a 29.8% increase in health claims paid for all active employees.
- Operating and administrative expenses remained relatively flat despite significant increases in fringe benefits due to the following significant fluctuations:
 - ✓ Retiree health insurance premiums and claims of \$2,234,009 previously recorded as an administrative expense is a reduction of OPEB liability under GASB Statement No. 75.
 - ✓ Power costs increased 26%, due to a 13.6% increase in kilowatt hours used and a 23.4% increase in the cost per kilowatt hour. The average amount of delivered water pumped increased 6.9% from 68.1 million of gallons of water per day (MPD) in 2017 to 72.8 MPD in 2018. Increases in production and pumping of delivered water resulted in increases in power usage.
 - ✓ Corporate and fiscal expenses increased \$236,284 due to costs associated with the issuance of the Series 2018 bonds in July of 2018.
 - ✓ Payments to contractors for tank inspection and refurbishing rose 35% due to the normal cycle of inspections and scheduled work. Work on tanks inspected in 2017 was deferred to 2018.
- Maintenance expenses rose 10.5% due to a 4.2% increase in the number of main and valve leaks in direct service and lease managed areas, and a 22.8% increase in cost per leak.
 - ✓ A new 7-year collective bargaining agreement with the Brotherhood of Western New York Water Workers increased wages across the collective bargaining unit. Members did not receive a general wage increase in 2017.
 - ✓ Payments to contractors for repairs increased 7.5%.
 - ✓ New restoration contracts in April 2018 resulted in a 47.1%. increase in restoration costs. Per unit costs for asphalt rose 18% and 20% in the north and south service areas respectively; concrete costs rose 28% and 71%, respectively.
- Other postemployment benefit expense decreased 8.8% due to a change in the actuarial cost method from projected unit credit under GASB Statement No. 45 to entry age normal required under GASB Statement No. 75. Other contributing factors include changes to mortality tables and healthcare trend rates.

- Nonoperating expenses net of related revenues decreased 48% in 2018 due primarily to the following:
 - ✓ Interest income on investments rose to \$1,006,077 from \$434,340 in 2017 due to the investment of Series 2018 bond proceeds, and a \$56,919 increase in market values as a result of general interest rate improvements.
 - ✓ Interest expense increased \$140,080, 9%, due to the issuance of the Series 2018 bonds offset by scheduled bond maturities in other issues.

Table 6—Summary of Cash Flow Activities

	Year Ended I	Increase/(Decrease)	
	2019	2018	Dollars
Cash flows provided (used) by:			
Operating activities	\$ 32,726,992	\$ 35,861,692	\$ (3,134,700)
Capital and related financing activities	(25,213,415)	(7,262,649)	(17,950,766)
Investing activities	(3,597,788)	7,830,247	(11,428,035)
Net increase in cash and cash equivalents	3,915,789	36,429,290	(32,513,501)
Cash and cash equivalents, beginning of year	59,736,336	23,307,046	36,429,290
Cash and cash equivalents, end of year	\$ 63,652,125	\$ 59,736,336	\$ 3,915,789
	Year Ended I	December 31,	Increase/(Decrease)
	2018	2017	Dollars
Cash flows provided (used) by:			
Operating activities	\$ 35,861,692	\$ 30,955,017	\$ 4,906,675
Capital and related financing activities	(7,262,649)	(32,492,312)	25,229,663
Investing activities	7,830,247	(15,123,932)	22,954,179
Net increase (decrease) in cash and cash equivalents	36,429,290	(16,661,227)	53,090,517
Cash and cash equivalents, beginning of year	23,307,046	39,968,273	(16,661,227)
Cash and cash equivalents, end of year	\$ 59,736,336	\$ 23,307,046	\$ 36,429,290

At December 31, 2019, 2018, and 2017, cash and cash equivalents were restricted for various purposes as presented below:

Table 7—Summary of Cash and Cash Equivalents

	Year Ended December 31,					
	2019	2017				
Unrestricted	\$ 49,355,562	\$ 28,469,639	\$ 12,703,139			
Restricted	14,296,563	31,266,697	10,603,907			
Total	\$ 63,652,125	\$ 59,736,336	\$ 23,307,046			

Cash and cash equivalents increased \$3,915,789 due to favorable short-term rates and little rate incentive to invest long-term.

Cash and cash equivalents increased \$36,429,290 from \$23,307,046 in 2017 to \$59,736,336 at the end of 2018. Proceeds of \$19,461,585 from the 2018 Series bond issue remained unspent at the end of 2018. Increased water sales of \$4,289,156 over last year, and the decreased use of certificates of deposit also contributed to the increase in cash and cash equivalents.

Capital Assets

The Authority's investment in capital assets as of December 31, 2019 amounted to \$399,107,598 (net of accumulated depreciation) as compared to \$392,868,668 as of December 31, 2018 and \$380,221,994 as of December 31, 2017. This investment includes land, buildings and structures, mains and hydrants, equipment, construction in progress and other (service installations, leasehold improvements, etc.). The Authority's greatest investment in capital assets is in buildings and structures and mains and hydrants.

Presented in Table 8 is a comparative summary of capital assets. Additional information on the Authority's capital assets can be found in Note 4 of the financial statements.

Table 8—Summary of Capital Assets (Net of Accumulated Depreciation)

	Decem	nber 31,	Increase/(Decrease)		
	2019	2018	Dollars	Percent	
Capital assets not being depreciated:					
Land	\$ 2,231,137	\$ 2,231,137	\$ -	-	
Construction work in progress	2,692,734	5,209,224	(2,516,490)	(48.3)	
Total capital assets, not being depreciated	4,923,871	7,440,361	(2,516,490)	(33.8)	
Capital assets being depreciated:					
Buildings and structures	300,486,283	292,916,407	7,569,876	2.6	
Mains and hydrants	252,800,828	243,860,750	8,940,078	3.7	
Equipment	71,332,782	68,132,715	3,200,067	4.7	
Other	61,120,604	58,404,446	2,716,158	4.7	
Total capital assets, being depreciated	685,740,497	663,314,318	22,426,179	3.4	
Less accumulated depreciation	291,556,770	277,886,011	13,670,759	4.9	
Total capital assets, being depreciated, net	394,183,727	385,428,307	8,755,420	2.3	
Total capital assets	\$399,107,598	\$ 392,868,668	\$ 6,238,930	1.6	

(continued)

Table 8—Summary of Capital Assets (Net of Accumulated Depreciation)

(concluded)

	Decem	ıber 31,	Increase/(Decrease)		
	2018	2017	Dollars	Percent	
Capital assets not being depreciated:					
Land	\$ 2,231,137	\$ 2,231,137	\$ -	-	
Construction work in progress	5,209,224	6,972,702	(1,763,478)	(25.3)	
Total capital assets, not being depreciated	7,440,361	9,203,839	(1,763,478)	(19.2)	
Capital assets being depreciated:					
Buildings and structures	292,916,407	290,606,197	2,310,210	0.8	
Mains and hydrants	243,860,750	230,584,540	13,276,210	5.8	
Equipment	68,132,715	60,926,418	7,206,297	11.8	
Other	58,404,446	54,254,087	4,150,359	7.6	
Total capital assets, being depreciated	663,314,318	636,371,242	26,943,076	4.2	
Less accumulated depreciation	277,886,011	265,353,087	12,532,924	4.7	
Total capital assets, being depreciated, net	385,428,307	371,018,155	14,410,152	3.9	
Total capital assets	\$392,868,668	\$380,221,994	\$ 12,646,674	3.3	

Debt Administration

At December 31, 2019 the Authority had \$60,784,272 in water revenue bond principal outstanding, net of deferred amounts for bond premiums and discounts, as compared to \$65,301,899 and \$47,242,359 on December 31, 2018 and 2017. Water revenue bonds outstanding, net of deferred amounts from bond premiums and discounts, decreased \$4,517,627. The decrease resulted from principal payments and amortization of premiums and discounts as shown in Table 9.

Table 9—Summary of Bond Payments, Premiums and Discounts

	Year Ended December 31,			
	2019	2018		
1998D Series	\$ 1,170,000	\$ 1,125,000		
2003F Series	780,000	760,000		
2008 Series	-	5,610,000		
2016 Series	1,955,000	1,885,000		
2018 Series	300,000			
Total water revenue bond payments	4,205,000	9,380,000		
Amortization of bond premiums	318,820	532,298		
Amortization of bond discount	(6,193)	(5,764)		
Total water revenue bond payments,				
bond premiums and bond discounts	\$ 4,517,627	\$ 9,906,534		

The Authority's issuance of 1998D Series and 2003F Series Bonds were through the New York State Environmental Facilities Corporation (EFC) and are rated based on the EFC's rating.

The Authority's bond ratings have remained stable receiving an AA+ rating from both Fitch Ratings and Standard & Poor's Rating Services.

For additional information on long-term debt activity, see Note 5 to the basic financial statements.

Economic Factors

The local economic outlook for Western New York has improved as a result of several economic development projects in the region. However, due to individual conservation efforts and changes in Federal and State laws and regulations which require appliances to use less water, significant increases in consumption other than those caused by extreme weather conditions are not expected.

A nearly four decade effort to promote conservation and water appliance efficiency is showing results with decreased water consumption per customer. At present, 37% of the bills sent to Authority customers are for the monthly or quarterly minimum. Given the reality of rising repair and replacement costs of an aging infrastructure, and decreasing consumption, the Authority established an infrastructure investment charge to maintain the Authority's aggressive investment program in system-wide infrastructure

A new rate structure was adopted and was effective January 1, 2017. The new structure assigns infrastructure charges and volumetric rates based on meter size and removes the declining block rate structure. The objective of the new structure was to allow for a more equitable distribution among customer classifications of fixed costs to provide a dependable, high quality water supply and fire protection services to all customers. The increased infrastructure charges for larger meters customers were phased in over a three-year period from 2017 through 2019. As a result, revenue generated from the infrastructure investment charges represented 19.5%, 20.1% and 21.7% of water sales in 2017, 2018 and 2019, respectively. A complete summary of the Authority's rate structure can be found in Table 10.

Over the past fifteen years the Authority has also been engaged in a series of water system consolidations whereby independent municipal water system operators have transferred ownership of their systems to the Authority. On July 1, 2019 the Authority acquired the water infrastructure of the Town of Aurora through a direct service agreement with the Town. Approximately 3,218 customer accounts were converted from lease managed or bulk sale accounts to direct service customers. On January 6, 2020 the Authority acquired the water infrastructure of the Town of Eden through a direct service agreement with the Town, converting approximately 2,400 existing lease managed customers to direct service.

Table 10 — Tariff Rates

All rates are presented as quarterly. Some accounts are billed monthly at one-third of the quarterly fees. A complete copy of the Tariff can be found at www.ecwa.org.

A. SMALL METER CUSTOMERS - Installed Meter Sizes 5/8", 3/4" and 1"

2019 Volumetric Rate —	\$3.29 per	1000 gallons
2020 Volumetric Rate —	\$3.36 per	1000 gallons

	Quarterly		Quarterly		Quarterly								
Size of	Commodity		Minimum			Infrastructure			Quarterly				
Meter	Allowance		Comr	nod	lity Investment		ent	Minimum		n			
(inches)	(gallons)	Charge Charge Ch			Charge			Cha	arge				
			2019		2020		2019		2020		2019		2020
5/8	9,000	\$	29.61	\$	30.24	\$	19.65	\$	20.04	\$	49.26	\$	50.28
3/4	9,000		29.61		30.24		19.65		20.04		49.26		50.28
1	9,000		29.61		30.24		19.65		20.04		49.26		50.28

B. LARGE METER CUSTOMERS - Installed Meter Sizes 1 1/4" and larger

2019 Volun	netric Rate –	– \$2.95 per	1000 gallons
2020 Volun	netric Rate –	– \$3.01 per	1000 gallons

	Quarterly	Quar	terly	Qua	rterly			
Size of	Commodity	Mini	mum	Infrast	ructure	Quarterly		
Meter	Allowance	Comn	nodity	Inves	stment	Mini	mum	
(inches)	(gallons)	Cha	arge	Cha	arge	Charge		
		2019	2020	2019	2020 201		2020	
1 1/4	27,000	\$ 79.65	\$ 81.27	\$ 76.89	\$ 78.42	\$ 156.54	\$ 159.69	
1 1/2	39,000	115.05	117.39	76.89	78.42	191.94	195.81	
2	63,000	185.85	189.63	123.00	125.46	308.85	315.09	
3	120,000	354.00	361.20	230.64	235.26	584.64	596.46	
4	198,000	584.10	595.98	384.39	392.07	968.49	988.05	
6	390,000	1,150.50	1,173.90	768.75	784.14	1,919.25	1,958.04	
8	630,000	1,858.50	1,896.30	1,230.00	1,254.60	3,088.50	3,150.90	
10	900,000	2,655.00	2,709.00	1,768.14	1,803.51	4,423.14	4,512.51	
12	1,230,000	3,628.50	3,702.30	3,305.64	3,371.76	6,934.14	7,074.06	
20	2,820,000	8,319.00	8,488.20	14,226.48	14,511.00	22,545.48	22,999.20	
24	3,840,000	11,328.00	11,558.40	28,729.80	29,304.39	40,057.80	40,862.79	

(continued)

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C. PUBLIC CORPORATIONS AND SPECIAL IMPROVEMENT DISTRICTS - Customers who buy water for resale

2019 Volumetric Rate —	\$2.58 per	1000 gallons
2020 Volumetric Rate —	\$2.63 per	1000 gallons

	Quarterly	Qua	rterly	Quarter	ly			
Size of	Commodity	Min	imum	Infrastruc	ture	Quar	terly	
Meter	Allowance	Com	modity	Investme	ent	Mini	mum	
(inches	(gallons)	Ch	arge	Charge	e	Charge		
		2019	2020	2019	2020	2019	2020	
1 1/4	27,000	\$ 69.66	\$ 71.01	\$ 76.89 \$	78.42	\$ 146.55	\$ 149.43	
1 1/2	39,000	100.62	102.57	76.89	78.42	177.51	180.99	
2	63,000	162.54	165.69	123.00	125.46	285.54	291.15	
3	120,000	309.60	315.60	230.64	235.26	540.24	550.86	
4	198,000	510.84	520.74	384.39	392.07	895.23	912.81	
6	390,000	1,006.20	1,025.70	768.75	784.14	1,774.95	1,809.84	
8	630,000	1,625.40	1,656.90	1,230.00	1,254.60	2,855.40	2,911.50	
10	900,000	2,322.00	2,367.00	1,768.14	1,803.51	4,090.14	4,170.51	
12	1,230,000	3,173.40	3,234.90	3,305.64	3,371.76	6,479.04	6,606.66	
20	2,820,000	7,275.60	7,416.60	14,226.48	14,511.00	21,502.08	21,927.60	
24	3,840,000	9,907.20	10,099.20	28,729.80	29,304.39	38,637.00	39,403.59	

Requests for Information

This financial report is designed to provide a general overview of the Authority's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to Karen A. Prendergast, Chief Financial Officer, Erie County Water Authority, 295 Main Street, Rm. 350, Buffalo, New York 14203-2494.

BASIC FINANCIAL STATEMENTS

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ERIE COUNTY WATER AUTHORITY Statements of Net Position December 31, 2019 and 2018

Determber 51, 2017 and A		
	2019	2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 49,355,562	\$ 28,469,639
Restricted cash and cash equivalents	2,186,725	1,741,711
Unrestricted investments	10,252,726	9,986,408
Restricted investments	418,360	685,439
Customer accounts receivable, (net of		
allowance for doubtful accounts)	4,447,835	4,073,593
Materials and supplies	2,800,482	2,675,660
Accrued revenue	8,997,651	8,560,205
Prepaid expenses and other assets	3,448,984	2,907,486
Total current assets	81,908,325	59,100,141
Noncurrent assets:		
Restricted cash and cash equivalents	12,109,838	29,524,986
Restricted investments	19,358,312	14,456,262
Long term accounts receivable	2,412,866	2,567,925
Capital assets, not being depreciated	4,923,871	7,440,361
Capital assets, net of accumulated depreciation	394,183,727	385,428,307
Total noncurrent assets	432,988,614	439,417,841
Total assets	514,896,939	498,517,982
DEFERRED OUTFLOWS OF RESOURCES	;	;;
Post-measurement date retirement contributions	1,750,037	1,745,033
Changes in retirement system assumptions	2,148,117	4,721,300
Actual versus projected other postemployment benefit factor		162,559
Advanced refunding of 2007 Series Bonds	1,118,244	1,184,347
Total deferred outflows of resources	13,176,036	7,813,239
LIABILITIES		,,010,207
Current liabilities:		
Accounts payable	5,473,032	6,552,759
Advances for construction	1,090,586	676,381
Construction retention	1,282,568	1,534,637
Accrued interest on water revenue bonds	260,473	291,169
Accrued liabilities	1,821,071	1,693,813
Compensated absences	1,570,958	1,629,869
Water revenue bonds - current portion	3,482,627	4,517,627
Total current liabilities	14,981,315	16,896,255
Noncurrent liabilities:	14,981,515	10,890,235
	0.101.650	0.045.040
Compensated absences	3,101,653	2,847,268
Net pension liability	3,932,796	1,764,324
Other postemployment benefit liability	90,082,536	89,646,879
Water revenue bonds - long term	57,301,646	60,784,272
Total noncurrent liabilities	154,418,631	155,042,743
Total liabilities	169,399,946	171,938,998
DEFERRED INFLOWS OF RESOURCES		
Changes in retirement system assumptions	1,328,799	5,657,193
Changes in other postemployment benefit assumptions	21,394,421	12,591,975
Total deferred inflows of resources	22,723,220	18,249,168
NET POSITION		
Net investment in capital assets	346,950,326	348,212,701
Restricted:		
Debt service reserve account	862,929	2,042,226
Debt service account	976,824	1,346,228
Unrestricted	(12,840,270)	(35,458,100)
Total net position	\$ 335,949,809	\$ 316,143,055
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The notes to the financial statements are an integral part of these statements.

ERIE COUNTY WATER AUTHORITY Statements of Revenue, Expenses, and Changes in Net Position Years Ended December 31, 2019 and 2018

	 2019		2018
Operating revenues	\$ 79,062,911	\$	79,010,108
Operating expenses:			
Operation and administration	27,374,920		28,496,565
Maintenance	15,229,823		15,212,914
Depreciation	13,906,284		13,038,530
Other postemployment benefit expense	 3,344,867		4,669,997
Total operating expenses	 59,855,894		61,418,006
Operating income	 19,207,017		17,592,102
Nonoperating revenues (expenses):			
Interest income on investments	1,265,180		1,006,077
Interest on loans receivable	82,672		86,443
Interest capitalization during construction	-		145,112
Interest expense	 (2,180,069)		(1,691,686)
Total nonoperating revenues (expenses)	 (832,217)		(454,054)
Net income before contribution in aid of construction	18,374,800		17,138,048
Contribution in aid of construction	 1,431,954		1,113,001
Change in net position	19,806,754		18,251,049
Net position—beginning	 316,143,055		297,892,006
Net position—ending	\$ 335,949,809	<u>\$</u>	316,143,055

The notes to the financial statements are an integral part of these statements.

ERIE COUNTY WATER AUTHORITY Statements of Cash Flows Years Ended December 31, 2019 and 2018

		2019		2018
CASH FLOWS FROM OPERATING ACTIVITIES				
Receipts from customers	\$	78,063,935	\$	80,034,199
Payments to contractors		(17,925,155)		(17,005,771)
Payments to employees including fringe benefits		(27,411,788)		(27,166,736)
Net cash provided by operating activities		32,726,992		35,861,692
CASH FLOWS FROM CAPITAL AND				
RELATED FINANCING ACTIVITIES				
Acquisition and construction of capital assets		(20,397,285)		(25,170,671)
Bond issuance		-		27,966,074
Bond repayment		(4,205,001)		(9,380,000)
Interest paid on revenue bonds		(2,457,288)		(1,959,733)
Advances for construction		414,205		168,680
Contribution in aid of construction		1,431,954		1,113,001
Net cash used for capital and related financing activities		(25,213,415)		(7,262,649)
CASH FLOWS FROM INVESTING ACTIVITIES				
Purchase of investment securities		(70,220,471)		(72,902,811)
Proceeds from sale or maturity of investments		65,461,756		79,674,802
Interest received		1,160,927		1,058,256
Net cash provided by (used for) investing activities		(3,597,788)		7,830,247
Net increase in cash		3,915,789		36,429,290
Cash and cash equivalents—beginning				
(including amounts restricted for future construction, debt				
service reserve, debt service, and customer deposits)		59,736,336		23,307,046
Cash and cash equivalents—ending				
(including amounts restricted for future construction, debt				
service reserve, debt service, and customer deposits)	<u>\$</u>	63,652,125	\$	59,736,336

(continued)

ERIE COUNTY WATER AUTHORITY Statements of Cash Flows Years Ended December 31, 2019 and 2018

(concluded)

	 2019	2018
Reconciliation of operating income to net cash		
provided by operating activities:		
Operating income:	\$ 19,207,017 \$	17,592,102
Adjustments to reconcile operating income		
to net cash provided by operating activities:		
Depreciation expense	13,906,284	13,038,530
(Increase) decrease in customer accounts receivable	(374,242)	992,594
(Increase) in material and supplies	(124,822)	(306,089)
(Increase) in accrued revenue	(437,446)	(331,352)
(Increase) decrease in other assets	(497,144)	282,136
Decrease in long term accounts receivable	155,059	108,250
(Decrease) in deferred outflows of resources	(5,428,900)	(1,562,923)
(Decrease) increase in accounts payable	(1,079,727)	281,425
Increase in other accrued liabilities	127,258	58,565
Increase in compensated absences	195,474	1,784,591
Increase (decrease) in net pension liability	2,168,472	(3,508,317)
Increase (decrease) in other postemployment liability	435,657	(9,993,427)
Increase in deferred inflows of resources	 4,474,052	17,425,607
Total adjustments	 13,519,975	18,269,590
Net cash provided by operating activities	\$ 32,726,992 \$	35,861,692

The notes to the financial statements are an integral part of these statements.

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ERIE COUNTY WATER AUTHORITY Notes to the Financial Statements Years Ended December 31, 2019 and 2018

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting entity—The Erie County Water Authority (the "Authority") is a public benefit corporation created in 1949 by the State of New York. The accounts of the Authority are maintained generally in accordance with the Uniform System of Accounts prescribed by the New York State Public Service Commission (PSC), although the Authority is not subject to PSC rules and regulations. The rates established by the Authority do not require PSC approval.

The Authority operates its business activities on a direct service basis where the Authority owns the assets and is responsible for their operation, maintenance, improvement and replacement; on a leased managed service basis where the Authority is responsible for the operation and maintenance of the assets while the lessor is responsible for the improvement and replacement of assets; and on a bulk sales basis where the Authority contracts with the customer to provide water while the customer owns the assets and is responsible for their operation, maintenance, improvement and replacement as well as billings and customer collections.

Basis of accounting—The financial statements of the Authority have been prepared in conformity with generally accepted accounting principles (GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

The activities of the Authority are accounted for similar to those often found in the private sector using the flow of economic resources measurement focus and the accrual basis of accounting. All assets, deferred outflows of resources, liabilities, deferred inflows of resources, net position, revenues and expenses are accounted for through a single enterprise fund with revenues recorded when earned and expenses recorded at the time liabilities are incurred.

Revenues from providing water services are reported as operating revenues. Operating revenues are recorded as water service is supplied. Water supplied, but not billed, as of the calendar year end is estimated based upon historical usage and has been accounted for as accrued revenue.

Transactions which are capital, financing or investing related are reported as nonoperating revenues. All expenses related to operating the system are reported as operating expenses. Interest expense and financing costs are reported as nonoperating expenses.

Budgets—The Authority is not required to have a legally adopted budget.

Compensated absences—Authority employees earn vacation, sick leave and compensatory time in varying amounts. In the event of termination or upon retirement, represented employees are entitled to payment for accrued vacation, sick and compensatory time limited to amounts defined under their respective collectively bargained agreements. All non-represented employees receive benefits as defined by Authority policy or by resolution of the Board.

Retirement plan—The Authority provides retirement benefits for its employees through contributions to the New York State and Local Employees' Retirement System. The system provides various plans and options, some of which require employee contributions.

Cash and cash equivalents—The Authority considers cash and cash equivalents to be all unrestricted and restricted cash accounts and short-term investments purchased with an original maturity of three months or less.

Investments—The Authority considers cash invested for more than three months investments. Investments are carried at fair value based on quoted market prices. The cost of investments sold is determined using the specific identification method and then adjusted to fair value changes to reflect the combined net change in these elements in the statements of revenue, expenses, and changes in net position.

Customer accounts receivable—All receivables are reported at their gross values and, where appropriate, are reduced by the estimated portion that is expected to be uncollectible. The Authority recognizes water revenues in the period in which the service is provided. Billings to customers generally consist of revenues earned from the prior three months for quarterly billed customers and revenues earned from the prior monthly-billed customers.

Materials and supplies—Materials and supplies are determined on the basis of moving-average cost.

Accrued revenue—This account represents earned water revenues as of the end of the year that have not yet been billed to customers.

Prepaid expenses and other assets—These consist primarily of certain payments reflecting costs applicable to future accounting periods and interest earned from securities and investments but not yet received.

Capital assets—Capital assets are defined by the Authority as assets with an initial, individual cost of more than \$10,000 and an estimated useful life in excess of two years. Infrastructure assets with individual costs less than \$10,000 are treated as a class of assets and are capitalized. The cost of additions to capital assets, including purchased property or property contributed in aid of construction, and replacement of property, is capitalized. Cost includes direct material, labor, overhead and an allowance for funds used during construction equivalent to the average cost of borrowed funds advanced for construction purposes. Overhead is added proportionately to the cost of a project on a monthly basis. The cost of retirements of capital assets is charged against accumulated depreciation. Maintenance and repairs are charged to expenses as incurred, and major betterments are capitalized.

Depreciation of capital assets is computed using the composite and straight-line methods based upon annual rates established in accordance with PSC guidelines: buildings and structures, 15 to 76 years; hydrants and mains, 64 to 100 years; equipment, 5 to 43 years; and other, 4 to 50 years. Depreciation expense approximated 2.06% and 2.01% of the original cost of average depreciable property for the years ended December 31, 2019 and 2018 respectively.

Long-term obligations—Long term debt is reported as a liability in the statements of net position. Bond premiums and bond discounts are deferred and amortized over the life of the bonds using the straight-line method. Bonds payable are reported net of the applicable bond premium or discount.

Advances for construction—Advances for construction primarily represent amounts received from contractors for water system expansions. Upon completion of the expansion, the cost of the construction is transferred to contributions in aid of construction, with any remaining advance being refunded.

Accrued liabilities—Included are provisions for estimated losses and surcharges collected from customers on behalf of various municipalities and unpaid at year end.

Contributions in aid of construction—Contributions in aid of construction represent amounts received from individuals, governmental agencies, and others to reimburse the Authority for construction costs incurred on capital projects or the original cost of certain water plant systems conveyed to the Authority by municipalities and others. Only those water plant systems resulting in increased revenue generation are assigned any value and, therefore, recorded as a contribution in aid of construction.

Risk management—The Authority limits its risk exposure to risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters through various insurance policies. Insurance coverage has remained relatively stable from the previous year. Insurance expense for the years ended December 31, 2019 and 2018 totaled \$2,494,963 and \$2,505,067, respectively. There were no settlements that significantly exceeded insurance coverage or reserved amounts for each of the last three years. Any unpaid claims outstanding as of December 31, 2019 and 2018 have been adequately reserved for.

Use of 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 related notes. Actual results could differ from those estimates.

Adoption of new accounting pronouncements—During the year ended December 31, 2019, the Authority implemented GASB Statements No. 83, Certain Asset Retirement Obligations; No. 84, Fiduciary Activities; No. 88, Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements; and No.90, Majority Equity Interests — an amendment of GASB Statements No. 14 and No. 61, effective for the year ending December 31, 2019. Required provisions of GASB Statement No. 92, Omnibus 2020, effective upon issuance were also implemented. None of these Statements had a material effect on the Authority's financial operations. The Authority also implemented GASB Statement 89, Accounting for Interest Cost Incurred before the End of a Construction Period, effective for periods beginning after December 31, 2019. The total amount of interest cost capitalized in 2018 was \$145,112, no capitalization of interest occurred in 2019.

Future impacts of accounting pronouncements—The Authority has not completed the process of evaluating the impact that will result from adopting or GASB No. 87, *Leases*, effective for the fiscal year ending December 31, 2020; No. 91, *Conduit Debt Obligations*; and No. 92, *Omnibus 2020*, effective for the fiscal year ending December 31, 2021. The Authority is therefore unable to disclose the impact that adopting these Statements will have on its financial position and results of operations when such statements are adopted, if any.

Reclassifications—Certain items in the Statements of Net Position and Statements of Cash Flows for the year ended December 31, 2018 have been reclassified to be consistent with current year presentation.

2. CASH, CASH EQUIVALENTS AND INVESTMENTS

Deposits—All uninsured bank deposits are fully collateralized.

Investments—The Authority's bond resolutions and investment guidelines allow for monies to be invested in the following instruments:

- Obligations of the United States Government;
- Obligations of Federal Agencies which represent full faith and credit of the United States Government;
- Bonds issued by the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation with remaining maturities not exceeding three years;
- Time deposits and money market accounts;
- Commercial paper which matures not more than 270 days after the date of purchase; and
- Municipal obligations of any state, instrumentality, or local governmental unit of such state.

Restricted cash, cash equivalents, and investments—Cash has been deposited into various trust accounts with a fiscal agent to satisfy certain legal covenants, or restricted internally through Board resolution. Further, the amounts are invested in compliance with the Authority's investment guidelines. The following is a brief synopsis of restricted cash:

Restricted for debt service—Cash restricted for debt service was established to fulfill the debt service requirements on the outstanding water revenue bonds as they become due and payable.

Restricted for customer deposits—Cash restricted for customer deposits was established to keep customer deposits for future work to be performed and deposits taken from customers to secure payment of their water bills segregated from the Authority's operating cash.

Restricted for employee pension contributions—New employees meeting eligibility requirements can elect participation in the New York State Voluntary Defined Contribution Program sponsored by the State University of New York ("SUNY") Optional Retirement Plan. Eligible employees have a 366 day vesting period during which the employer retains the employee and employer contributions.

Restricted employee payroll withholdings—Employee elective payroll withholding under Title 26 U.S. Code §125 - Cafeteria plans and §105(h) - Amounts received under accident and health plans.

Restricted for future construction—Cash restricted for future construction was established to maintain a construction account, which has been committed for future capital expenditures.

Restricted for debt service reserve—The Authority restricts investments in the debt service reserve account as required by various bond resolutions.

As of December 31, 2019 and 2018, the Authority had the following restricted cash, cash equivalents, and investments:

	December 31, 2019			December 31, 2018				
	Amortized			Fair	Amortized		Fair	
	Cos	t		Value		Cost		Value
Restricted for debt service:								
Cash	\$ 558	8,464	\$	558,464	\$	660,789	\$	660,789
Investments - U.S. Treasury bills	418	8,273		418,360		684,313		685,439
	976	6,737		976,824		1,345,102		1,346,228
Restricted for customer deposits:								
Cash	1,590	0,977		1,590,977		1,055,449		1,055,449
Restricted for employee payroll withholdings:								
Cash	37	7,284		37,284		25,473		25,473
Current restricted cash, cash								
equivalents, and investments	\$ 2,604	4,998	\$	2,605,085	\$	2,426,024	\$	2,427,150
Restricted for future construction:								
Cash	\$ 12,109	9,748	\$	12,109,748	\$ 1	0,063,953	\$	10,063,953
Investment - Certificate of Deposit	480	0,000		480,000		480,000		480,000
Investment - U.S. Treasury bills	7,812	2,958		7,892,549	2	21,455,918		21,463,856
Investment - U.S. Treasury notes	10,127	7,738		10,122,924		9,935,055		9,931,213
	30,530	0,444		30,605,221	4	1,934,926		41,939,022
Restricted for debt service reserve:								
Cash		90		90		121		121
Investment - State and Local Government Series								
Treasury bonds	862	2,839		862,839		2,042,105		2,042,105
	862	2,929		862,929		2,042,226		2,042,226
Noncurrent restricted cash, cash								
equivalents, and investments	\$ 31,393	3,373	\$.	31,468,150	\$ 4	3,977,152	\$ ·	43,981,248
-								
Total restricted cash, cash equivalents								
and investments	\$ 33,998	8.371	\$	34,073,235	\$ 4	6,403,176	\$	46,408,398
	/2 / /	,- ·	<u> </u>	,, 20	Ŧ	,,	-	,,

Fair value measurement—The Authority reports its fair value measures using a three-level hierarchy that prioritizes the inputs used to measure fair value. This hierarchy, established by GAAP, requires that entities maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The three levels of inputs used to measure fair value are as follows:

• Level 1. Quoted prices for identical assets or liabilities in active markets to which the Authority has access at the measurement date.

- Level 2. Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include:
 - Quoted prices for similar assets or liabilities in active markets;
 - Observable inputs other than quoted prices for the asset or liability (for example, interest rates and yield curves);and
 - Inputs derived principally from, or corroborated by, observable market data by correlation or by other means.
- Level 3. Unobservable inputs for the asset or liability. Unobservable inputs should be used to measure fair value to the extent that observable inputs are not available.

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

- Money market funds, DDA and NOW accounts of \$63,652,125 are valued using quoted prices for identical assets in active markets (Level 1 input).
- Certificates of deposit of \$720,000 are valued using quoted prices for identical assets in active markets (Level 1 input).
- U.S. treasury bills of \$18,323,635 and treasury notes of \$10,122,924 are valued using quoted prices for identical assets in active markets (Level 1 input).
- Treasury securities State and Local Government Series ("SLGS") of \$862,839 is valued using quoted prices for similar assets or liabilities in active markets (Level 2 input).

		Level 1	Level 2	Level 3
Description	12/31/2019	Investments	Investments	Investments
Investments by fair value level:				
Money Market/DDA/NOW Accounts	\$ 63,652,125	\$ 63,652,125	\$ -	\$ -
Certificate of Deposit	720,000	720,000	-	-
U.S. Treasury bills/notes	28,446,559	28,446,559	-	-
Treasury Securities - SLGS	862,839		862,839	
Total	<u>\$ 93,681,523</u>	<u>\$ 92,818,684</u>	<u>\$ 862,839</u>	<u>\$ </u>
		Level 1	Level 2	Level 3
Description	12/31/2018	Investments	Investments	Investments
Investments by fair value level:				
Money Market/DDA/NOW Accounts	\$ 40,275,424	\$ 40,275,424	\$ -	\$ -
Certificate of Deposit	480,000	480,000	-	-
U.S. Treasury bills/notes	42,066,916	42,066,916	-	-
Treasury Securities - SLGS	2,042,105		2,042,105	
Total	\$ 84,864,445	\$ 82,822,340	\$ 2,042,105	\$ -

Custodial credit risk—For deposits, this is the risk that in the event of a bank failure, the Authority's deposits may not be returned. For cash equivalents and investments, this is the risk that in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investments that are in the possession of an outside party. By State statute all deposits in excess of FDIC insurance coverage must be collateralized. As of December 31, 2019 and 2018, all uninsured bank deposits were fully collateralized with securities held by the pledging financial institutions' trust departments or agents in the Authority's name and all of the Authority's cash equivalents and investments were registered in the Authority's name. For investments, the U.S. Government Securities are not considered to have credit risk and do not require disclosure of credit quality.

Interest rate risk—For investments, this is the risk that potential purchasers of debt securities will not agree to pay face value for those securities if interest rates subsequently increase. There is the prospect of a loss should those securities be sold prior to maturity. The Authority uses the specific identification method to identify the maturity for each investment and evaluate risk accordingly. For the year ended December 31, 2019 the Authority had \$28,446,559 in US Treasury securities and \$862,839 in SLGS with the longest maturity dates being December 3, 2020 and July 15, 2023.

3. CUSTOMER ACCOUNTS RECEIVABLE

Customer accounts receivable primarily represent amounts due from customers for current and past due water services provided, including penalties, unpaid bill charges, collection fees and shut-off charges.

Customers are billed either on a monthly or quarterly basis depending on the type of customer and the level of water usage. Municipalities are billed for hydrant maintenance annually. Customers are provided a fifteen day (15) payment period from the billing date to pay their current water charges. A late penalty of 10% is assessed on any unpaid balance 10 days after the due date. An account will receive a collection letter if the account is active, has a receivable balance greater than \$100, and has no current collections activity. The collection letter indicates that the customer could be subject to the discontinuance of their water service and additional delinquent charges.

Following fifteen (15) days from the collection letter date, unpaid accounts with receivable balances greater than \$200 are sent to a collector who schedules a visit to the customer with an unpaid bill notice. At the visit, the account is "posted," and the customer has three (3) working days to either pay the bill in full, or submit a partial payment (25%-33%) with a signed promissory agreement for the remaining balance. The agreement is normally kept to a term of 90 days, with some exceptions to 180 days. In agreements with lease managed water districts and in some direct service districts, unpaid water bills are referred to municipalities for payment per the terms of the service agreement. Allowances for doubtful accounts at December 31, 2019 and 2018 total \$367,911 and \$247,398, respectively.

4. CAPITAL ASSETS

Capital asset activity for the years ended December 31, 2019 and December 31, 2018 is presented below. Some of the 2018 accumulated depreciation balances have been restated to reflect retirement adjustments.

	Balance		R	etirements &	Balance
	 1/1/2019	 Additions	Re	classifications	 12/31/2019
Capital assets not being depreciated:					
Land	\$ 2,231,137	\$ -	\$	-	\$ 2,231,137
Construction work in progress	 5,209,224	 19,128,318		(21,644,808)	 2,692,734
Total non-depreciable capital assets	 7,440,361	 19,128,318		(21,644,808)	 4,923,871
Capital assets being depreciated:					
Buildings and structures	292,916,407	7,569,876		-	300,486,283
Mains and hydrants	243,860,751	8,940,554		(477)	252,800,828
Equipment	68,132,715	3,596,661		(396,594)	71,332,782
Other	 58,404,448	 2,716,156		-	 61,120,604
Total depreciable capital assets	663,314,321	22,823,247		(397,071)	685,740,497
Less accumulated depreciation:					
Buildings and structures	153,154,619	6,917,197		-	160,071,816
Mains and hydrants	57,323,964	2,461,220		(477)	59,784,707
Equipment	39,722,236	3,404,365		(235,051)	42,891,550
Other	 27,685,195	 1,123,502		-	 28,808,697
Total accumulated depreciation	 277,886,014	13,906,284		(235,528)	 291,556,770
Capital assets being depreciated, net	 385,428,307	 8,916,963		(161,543)	 394,183,727
Total capital assets, net	\$ 392,868,668	\$ 28,045,281	\$	(21,806,351)	\$ 399,107,598
	Balance		R	etirements &	Balance
	Balance 1/1/2018	Additions		etirements &	Balance 12/31/2018
Capital assets not being depreciated.	 Balance 1/1/2018	 Additions		etirements & classifications	 Balance 12/31/2018
Capital assets not being depreciated:	 1/1/2018	 Additions	Ree		\$ 12/31/2018
Land	\$ 1/1/2018 2,231,137	\$ -		classifications	\$ <u>12/31/2018</u> 2,231,137
Land Construction work in progress	\$ 1/1/2018 2,231,137 6,972,702	\$ - 25,562,909	Ree	classifications - (27,326,387)	\$ 12/31/2018 2,231,137 5,209,224
Land Construction work in progress Total non-depreciable capital assets	\$ 1/1/2018 2,231,137	\$ -	Ree	classifications	\$ <u>12/31/2018</u> 2,231,137
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated:	\$ 1/1/2018 2,231,137 6,972,702 9,203,839	\$ 25,562,909 25,562,909	Ree	classifications - (27,326,387)	\$ 12/31/2018 2,231,137 5,209,224 7,440,361
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197	\$ 25,562,909 25,562,909 2,310,210	Ree	<u>-</u> (27,326,387) (27,326,387) -	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540	\$ 25,562,909 25,562,909 2,310,210 13,408,646	Ree	<u>(27,326,387)</u> (27,326,387) (27,326,387)	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418	\$ 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605	Ree	<u>-</u> (27,326,387) (27,326,387) -	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment Other	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418 54,254,087	\$ 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605 4,150,361	Ree	<u>-</u> (27,326,387) (27,326,387) (27,326,387) - (132,435) (970,308) -	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715 58,404,448
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment Other Total depreciable capital assets	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418	\$ 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605	Ree	<u>(27,326,387)</u> (27,326,387) (27,326,387)	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment Other Total depreciable capital assets Less accumulated depreciation:	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418 54,254,087 636,371,242	\$ 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605 4,150,361 28,045,822	Ree	<u>-</u> (27,326,387) (27,326,387) (27,326,387) - (132,435) (970,308) -	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715 58,404,448 663,314,321
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment Other Total depreciable capital assets Less accumulated depreciation: Buildings and structures	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418 54,254,087 636,371,242 146,289,632	\$ 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605 4,150,361 28,045,822 6,864,987	Ree	classifications (27,326,387) (27,326,387) (27,326,387) (132,435) (970,308) - (1,102,743) -	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715 58,404,448 663,314,321 153,154,619
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment Other Total depreciable capital assets Less accumulated depreciation: Buildings and structures Mains and hydrants	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418 54,254,087 636,371,242 146,289,632 55,130,987	\$ 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605 4,150,361 28,045,822 6,864,987 2,325,412	Ree	<u>classifications</u> <u>(27,326,387)</u> (27,326,387) (27,326,387) - (132,435) (970,308) - (1,102,743) - (132,435)	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715 58,404,448 663,314,321 153,154,619 57,323,964
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment Other Total depreciable capital assets Less accumulated depreciation: Buildings and structures Mains and hydrants Equipment	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418 54,254,087 636,371,242 146,289,632 55,130,987 37,195,224	\$ 25,562,909 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605 4,150,361 28,045,822 6,864,987 2,325,412 2,900,180	Ree	classifications (27,326,387) (27,326,387) (27,326,387) (132,435) (970,308) - (1,102,743) -	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715 58,404,448 663,314,321 153,154,619 57,323,964 39,722,236
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment Other Total depreciable capital assets Less accumulated depreciation: Buildings and structures Mains and hydrants Equipment Other	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418 54,254,087 636,371,242 146,289,632 55,130,987 37,195,224 26,737,244	\$ 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605 4,150,361 28,045,822 6,864,987 2,325,412 2,900,180 947,951	Ree	<u>-</u> (27,326,387) (27,326,387) (27,326,387) (132,435) (970,308) <u>-</u> (1,102,743) (1,102,743) (1,102,743) (373,168) <u>-</u>	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715 58,404,448 663,314,321 153,154,619 57,323,964 39,722,236 27,685,195
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment Other Total depreciable capital assets Less accumulated depreciation: Buildings and structures Mains and hydrants Equipment Other Total accumulated depreciation	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418 54,254,087 636,371,242 146,289,632 55,130,987 37,195,224 26,737,244 265,353,087	\$ 25,562,909 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605 4,150,361 28,045,822 6,864,987 2,325,412 2,900,180 947,951 13,038,530	Ree	classifications (27,326,387) (27,326,387) (27,326,387) (132,435) (970,308) - (1,102,743) - (132,435) (373,168) - (505,603)	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715 58,404,448 663,314,321 153,154,619 57,323,964 39,722,236 27,685,195 277,886,014
Land Construction work in progress Total non-depreciable capital assets Capital assets being depreciated: Buildings and structures Mains and hydrants Equipment Other Total depreciable capital assets Less accumulated depreciation: Buildings and structures Mains and hydrants Equipment Other	\$ 1/1/2018 2,231,137 6,972,702 9,203,839 290,606,197 230,584,540 60,926,418 54,254,087 636,371,242 146,289,632 55,130,987 37,195,224 26,737,244	\$ 25,562,909 25,562,909 2,310,210 13,408,646 8,176,605 4,150,361 28,045,822 6,864,987 2,325,412 2,900,180 947,951	Ree	<u>-</u> (27,326,387) (27,326,387) (27,326,387) (132,435) (970,308) <u>-</u> (1,102,743) (1,102,743) (1,102,743) (373,168) <u>-</u>	\$ 12/31/2018 2,231,137 5,209,224 7,440,361 292,916,407 243,860,751 68,132,715 58,404,448 663,314,321 153,154,619 57,323,964 39,722,236 27,685,195

5. LONG-TERM DEBT

At December 31, 2019 the Authority has three series of bonds outstanding. All outstanding bonds have been issued under the Authority's Fourth General Bond Resolution (the Resolution) and, therefore, all the current bondholders have equal claims against the Authority's revenues. The Authority's outstanding bonds are secured by the Authority's available revenues and all accounts established by the Resolution including investments.

A default will have occurred if the payment of principal or interest or sinking fund installment payments or the redemption of term bonds are not paid when due and payable; if the Authority fails to comply with a bond covenant.

If there is an occurrence of an event of default, upon the written request of the holders of not less than 25% of all series of bonds then outstanding, the Trustee or holders may declare the principal of all the bonds then outstanding and the interest accrued thereon, to be due and payable immediately.

The Authority does not have any lines of credit.

Summary of long-term debt—the following is a summary of the Authority's water revenue bonds at December 31, 2019:

	Final Annual	Year of				Principal
	Installment	Earliest Principal	Interest	Original	(Dutstanding
Series	Payment Due	Payment	Rate	Issue		12/31/2019
2003F Series	7/15/2023	2004	.79-4.50% (*)	\$ 15,544,443	\$	4,228,384
2016 Series	12/1/2036	2017	2.00-5.00%	30,725,000		25,455,000
2018 Series	12/1/2048	2019	3.00-5.00%	24,900,000		24,600,000
						54,283,384
Less portion due wi	thin one year					(3,170,000)
					\$	51,113,384

(*) Gross rates subject to subsidy from the New York State Environmental Facilities Corporation (EFC)

1998D Series Bonds

The Current Interest 1998D Series Bonds were issued to the EFC under their aggregate pool financing identified as New York State Environmental Facilities Corporation State Clean Water and Drinking Water Revolving Funds Revenue 1998D Series in 1998.

The 1998D Series Bonds in the amount of \$16,859,700, representing the Authority's portion of the financing, were issued to cover the cost of the construction of two new clearwell water tanks and a new pumping station at the Authority's Sturgeon Point plant.

Interest on the 1998D Series Bonds ranges from 0.845% to 3.355% and is payable semi-annually on April 15 and October 15. The terms of the EFC borrowings provide for an interest subsidy of approximately one-third of the stated interest rates shown above. The subsidy is generated from a United States Environmental Protection Agency grant to the EFC which the EFC invests and credits the borrower with the earnings on the invested funds as an offset to the interest payable on the bonds.

Principal is payable on October 15. The final maturity of the bonds was October 15, 2019.

2003F Series Bonds

On July 24, 2003 the 2003F Series Bonds were issued to the EFC under their aggregate pool financing identified as New York State Environmental Facilities Corporation State Clean Water and Drinking Water Revolving Funds Revenue 2003F Series Bonds.

The 2003F Series Bonds in the amount of \$15,544,443 representing the Authority's portion of this financing were issued to cover the cost of new pump stations along with meters, water mains, a pump station and a storage tank in the City of Tonawanda.

On August 1, 2013 EFC refunded the 2003F Series Bonds. New bonds were issued in the same principal denomination. The Authority paid off \$691,616 on the outstanding bond principal. The Authority did not issue new bonds to EFC. The interest rates on the outstanding bonds were significantly reduced. The net present value savings as calculated by EFC is \$1,382,895.

Interest on the 2003F Series Bonds ranges from 0.79% to 4.50% and is payable semi-annually on January 15 and July 15. The terms of the EFC borrowings provide for an interest subsidy of approximately one-third of the stated interest rates shown above. The subsidy is generated from a United States Environmental Protection Agency grant to the EFC which the EFC invests and credits the borrower with the earnings on the invested funds as an offset to the interest payable on the bonds.

Principal is payable on July 15. The final maturity of the bonds is July 15, 2023.

2008 Series Bonds

On June 25, 2008, the Authority issued \$45,770,000 of Water Revenue Refunding Bonds, Series 2008. The proceeds of the issue, including a \$3,081,304 premium which is amortized over the life of the Series 2008 Series Bonds, were used to refund the principal of the 1993A Series and 1993B Series, \$27,500,000 and \$15,000,000, respectively. A portion of the proceeds covered the costs of issuance including a fee in connection with the termination of the swap agreement related to the 1993A Series and 1993B Series Bonds. The remaining proceeds were deposited into the 2008 Series Debt Service Reserve Account. The 1993A Series and 1993B Series Bonds were redeemed on July 25, 2008. The issuance of the 2008 Series Refunding Bonds reduced the debt service by \$7,481,572 and has a net present value cash flow savings of \$8,393,467.

Interest on the 2008 Series Bonds ranged from 4.0% to 5.0% and was payable semi-annually on June 1 and December 1.

Principal was payable on December 1. The final maturity of the bonds was December 1, 2018.

2016 Series Refunding Bonds

On September 29, 2016, the Authority issued \$30,725,000 of Water Revenue Refunding Bonds, Series 2016. The proceeds of the issue after premium of \$4,378,154 and discount of \$109,654 were used to refund the principal of the 2007 Series and 2012 Series Bonds, \$29,705,000 and \$7,850,000, respectively. A portion of the proceeds were deposited into a Rebate Liability Fund to be used to pay any arbitrage rebate due on the 2007 Series Bonds in September 2017. The remainder of the proceeds covered the costs of issuance. The issuance of the 2016 Series

Refunding Bonds reduced the debt service by \$9,330,782 and has a net present value cash flow savings of \$6,787,290.

The advance refunding resulted in a deferred outflow of resources of \$1,333,446 which is being amortized over the life of the 2016 Series Refunding Bonds. The deferred outflow is the difference between the reacquisition price, which is the amount deposited into the escrow account, and the carrying amount of the 2007 Series Bonds at the time of defeasance.

The 2012 Series Bonds were redeemed immediately. The remaining net proceeds from the issuance and certain existing funds were deposited into an escrow account by an escrow agent pursuant to the refunding agreement and invested in U.S. Government securities for the 2007 Series Bonds. The maturities of these invested funds and related earnings thereon provided sufficient cash flow to meet the debt service requirements of the defeased bonds. These advance refunding transactions effectively released the Authority from its obligation to repay these bonds and constituted in-substance defeasances. The 2007 Series Bonds were callable on December 1, 2017. Prior to December 31, 2017, interest and principal payments were being made from the escrow account. On December 1, 2017 the remaining bonds were redeemed. The principal outstanding on the bonds defeased is \$0 at December 31, 2019 and \$0 at December 31, 2018.

Interest on the 2016 Refunding Bonds ranges from 2.00% to 5.00% and is payable semi-annually on June 1 and December 1.

Principal is payable on December 1. The final maturity of the bonds is December 1, 2036.

2018 Series Bonds

On July 25, 2018, the Authority issued \$24,900,000 of Water Revenue Bonds, Series 2018. The bonds were issued at a premium of \$3,089,043 offset by a discount of \$22,969. The premium and discount will be amortized over the life of the bonds. The proceeds of the issue will be used to finance the cost of development, acquisition and construction of certain improvements and additions to the Water Works System and to pay the costs of issuance of the 2018 Series Bonds.

Interest on the 2018 Series Bonds ranges from 3.00% to 5.00% and is payable semi-annually on June 1 and December 1.

Principal is payable on December 1. The final maturity of the bonds is December 1, 2048.

Year ending December 31,	Bond Principal	Interest on Bonded Deb		
2020	\$ 3,170,000	\$	2,342,638	
2021	3,305,000		2,205,421	
2022	3,455,000		2,049,952	
2023	3,548,384		1,771,504	
2024	2,040,000		1,764,182	
2025-2029	11,255,000		7,227,660	
2030-2034	10,565,000		4,638,878	
2035-2039	8,755,000		2,995,650	
2040-2044	4,165,000		1,648,000	
2045-2048	 4,025,000		515,250	
	54,283,384		27,159,135	
Less portion due within one year	 3,170,000		2,342,638	
	\$ 51,113,384	\$	24,816,497	

Long-term debt requirements—Long-term debt requirements are summarized as follows:

Summary of changes in long-term debt—The following is a summary of changes in water revenue bonds and other long-term debt for the years ended December 31, 2019 and December 31, 2018:

	Balance 1/1/2019	Additions and Appreciation	Reductions	Balance 12/31/2019	Due Within One Year
1998D Series	\$ 1,170,000	\$ -	\$ (1,170,000)	\$ -	\$ -
2003F Series	5,008,384	-	(780,000)	4,228,384	805,000
2016 Series	27,410,000	-	(1,955,000)	25,455,000	2,055,000
2018 Series	24,900,000		(300,000.00)	24,600,000	310,000
Total bonds payable	58,488,384	-	(4,205,000)	54,283,384	3,170,000
Bond premiums	6,933,549	-	(318,819)	6,614,730	318,820
Bond discounts	(120,034)		6,193	(113,841)	(6,193)
Net bonds payable	\$ 65,301,899	<u>\$ -</u>	<u>\$ (4,517,626)</u>	\$ 60,784,273	\$ 3,482,627
Compensated absences	\$ 4,477,137	<u>\$ 1,783,289</u>	<u>\$ (1,587,815)</u>	\$ 4,672,611	<u>\$ 1,570,958</u>

	Balance	Additions and		Balance	Due Within
	1/1/2018	Appreciation	Reductions	12/31/2018	One Year
1998D Series	\$ 2,295,000	\$ -	\$ (1,125,000)	\$ 1,170,000	\$ 1,170,000
2003F Series	5,768,384	-	(760,000)	5,008,384	780,000
2008 Series	5,610,000	-	(5,610,000)	-	-
2016 Series	29,295,000	-	(1,885,000)	27,410,000	1,955,000
2018 Series		24,900,000		24,900,000	300,000
Total bonds payable	42,968,384	24,900,000	(9,380,000)	58,488,384	4,205,000
Bond premiums	4,376,804	3,089,043	(532,298)	6,933,549	318,820
Bond discounts	(102,829)	(22,969)	5,764	(120,034)	(6,193)
Net bonds payable	\$ 47,242,359	\$ 27,966,074	<u>\$ (9,906,534</u>)	\$ 65,301,899	\$ 4,517,627
Compensated absences	<u>\$ 2,692,546</u>	<u>\$ 2,136,321</u>	<u>\$ (351,730</u>)	<u>\$ 4,477,137</u>	<u>\$ 1,629,869</u>

6. PENSION PLAN

Plan Description-The Authority participates in the New York State and Local Employees' Retirement System ("State Plan"), which is a cost-sharing, multiple-employer, public employee retirement system. The State Plan provides retirement, disability, and death benefits to members as authorized by the New York State Retirement and Social Security Law (NYSRSSL). The net position of the State Plan is held in the New York State Common Retirement Fund (the Fund), which was established to hold all net assets and record changes in plan net position allocated to the State Plan. The Comptroller of the State of New York ("Comptroller") serves as the trustee of the Fund and is the administrative head of the State Plan. The Comptroller is an elected official determined in a direct statewide election and serves a four year term. Once a public employer elects to participate in the State Plan, the election is irrevocable. The New York State Constitution provides that pension membership is a contractual relationship and plan benefits cannot be diminished or impaired. Benefits can be changed for future members only by enactment of a State statute. The Authority also participates in the Public Employees' Group Life Insurance Plan (GLIP) which provides death benefits in the form of life insurance. The State Plan is included in the State's financial report as a pension trust fund. That report, including information with regard to benefits provided, may be found at www.osc.state.ny.us/retire/publications/index.php or obtained by writing to the New York State and Local Retirement System, 110 State Street, Albany, New York 12244.

Funding Policy—Plan members who joined the State Plan before July 27, 1976 are not required to make contributions. Those joining on or after July 27, 1976 are required to contribute 3% of their annual salary for the first ten years of their membership, and members hired after January 1, 2010 generally contribute 3% of their salary for the duration of their membership. For members hired after April 1, 2012 the contribution rate varies from 3% to 6% depending on salary.

Under the authority of the NYSRSSL, the Comptroller annually certifies the actuarially determined rates expressly used in computing the employers' contributions based on salaries paid during the State Plans fiscal year ending March 31. Contributions for the current year and two preceding years were equal to 100% of the contributions required, as presented on the following page.

Year Ended December 31,	Amount
2019	\$ 2,333,383
2018	2,326,711
2017	2,338,695

Pension Liabilities, Pension Expense, and Deferred Outflows and Inflows of Resources Related to Pensions—The Authority's proportionate share of net pension liability was \$3,932,796 and \$1,764,324 as of December 31, 2019 and 2018, respectively. The net pension liability is measured as of March 31 of each year and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Authority's proportion of the net pension liability was based on the Authority's long-term share of contributions to the pension plan relative to the projected contributions of all participating members, actuarially determined.

At December 31, 2019 and 2018 the Authority's proportion of the pension liability was 0.056% and 0.055%, respectively. For the years ended December 31, 2019 and December 31, 2018, the Authority recognized pension expense of \$2,740,160 and \$2,254,658, respectively. As of December 31, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows		Def	erred Inflows
	of	Resources	of	Resources
Differences between expected and actual experience	\$	774,450	\$	264,001
Changes of assumptions		988,544		-
Net difference between projected and actual earnings on				
pension plan investments		-		1,009,373
Changes in proportion and differences between Authority				
contributions and proportionate share of contributions		385,123		55,425
Authority contributions subsequent to the measurement date		1,750,037		-
Total deferred outflows/inflows of resources	\$	3,898,154	\$	1,328,799

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

	Deferred Outflows		Defe	erred Inflows
	of	Resources	of	Resources
Differences between expected and actual experience	\$	629,277	\$	520,011
Changes of assumptions		1,169,892		-
Net difference between projected and actual earnings on				
pension plan investments		2,562,541		5,058,198
Changes in proportion and differences between Authority				
contributions and proportionate share of contributions		359,590		78,984
Authority contributions subsequent to the measurement date		1,745,033		
Total deferred outflows/inflows of resources	\$	6,466,333	\$	5,657,193

The \$1,750,037 reported as deferred outflows of resources related to pensions resulting from Authority contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending December 31, 2020. Other amounts reported as deferred outflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended December 31,	Amount
2020	\$ 939,441
2021	(676,841)
2022	(13,052)
2023	569,770

Actuarial assumptions—The total pension liability for the March 31, 2019 measurement dates was determined by using an actuarial valuation as of April 1, 2018, with update procedures used to roll forward the total pension liability to March 31, 2019. The valuation used the following actuarial assumptions:

Actuarial cost method	Aggregate Cost Method
Inflation	2.5%
Salary scale	4.2% average, indexed by service
Investment rate of return	7.0%
Cost of living adjustments	1.3%
Decrements	Based upon fiscal year 2011-2015 experience
Mortality improvement	Gender/Collar specific tables based on fiscal years
	2011-2015 with Society of Actuaries Scale MP-2018
	loading for mortality improvement

The long-term expected rate of return on pension plan investments was determined using a buildingblock method in which best estimate ranges of expected future real rates of return (expected return, net of investment expenses 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 target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized on the following page for the measurement date of March 31, 2019.

		Long-term
	Target	expected real
Asset class	allocation	rate of return
Domestic equity	36.00%	4.55%
International equity	14.00%	6.35%
Private equity	10.00%	7.50%
Real estate	10.00%	5.55%
Absolute return strategies	2.00%	3.75%
Opportunistic portfolio	3.00%	5.68%
Real assets	3.00%	5.29%
Bonds and mortgages	17.00%	1.31%
Cash	1.00%	-0.25%
Inflation-indexed bonds	4.00%	1.25%
	100.00%	

Discount rate—The discount rate used to calculate the total pension liability at December 31, 2019 and 2018 was 7.0%. The projection of cash flows used to determine the discount rate assumes that contributions from plan members will be made at the current contribution rates and that contributions from employers will be made at the statutorily required rates, actuarially determined. Based upon the assumptions, the State 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.

Sensitivity of the proportionate share of the net pension liability to the discount rate assumption— The following presents the Authority's proportionate share of the net pension liability calculated using the discount rate of 7.0%, as well as what the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% lower (6.0%) or 1% higher (8.0%) than the current rate:

	1% Decrease Current Assumption		1% Increase
	6.0%	7.0%	8.0%
As of December 31, 2019	\$17,194,812	\$ 3,932,796	\$ (7,208,238)
As of December 31, 2018	13,349,349	1,764,324	(8,036,145)

Collective net position liability of participating employers and actuarial information—The components of the net position liability of the employers as of March 31, 2019 and 2018 were as follows:

	2019	2018
	(in thousands)	(in thousands)
Employers' total pension liability	\$ 189,803,429	\$ 183,400,590
Plan net position	(182,718,124)	(180,173,145)
Employers' net pension liability	\$ 7,085,305	\$ 3,227,445
Fiduciary net position as a percentage of total pension liability	96.3%	98.2%

7. LABOR RELATIONS

Certain Authority employees are represented by two bargaining units, Brotherhood of Western New York Water Workers (BWNYWW), and Civil Service Employees Association, Inc. (CSEA). The CSEA and the Authority entered into a five-year collective bargaining agreement dated May 1, 2017.

On December 13, 2018, the Authority entered into a seven-year collective bargaining agreement with the BWNYWW.

8. POST EMPLOYMENT BENEFITS

Plan Description and Benefits Provided—The Authority provides retiree health plans through Labor Management Healthcare Fund (LMHF). Retirees must meet age and years of service requirements to qualify for health benefits under this cost-sharing multiple-employer defined benefit healthcare plan ("the Plan"). Retiree benefits continue for the lifetime of the retiree and spousal benefits continue for their lifetime unless they remarry. Retirees can also elect to receive an annual payment in lieu of health insurance. There were 185 and 188 retirees or spouses receiving health care benefits at December 31, 2019 and December 31, 2018 respectively.

Authorization for the Authority to pay a portion, or all, of retiree health insurance premiums was enacted by resolution of the Authority's Board of Commissioners or through union contracts, which are ratified by the Board of Commissioners. Retired employees that met the age and years of service requirements and were enrolled in any healthcare plan prior to June 1, 2004 are not required to make a contribution. Retirees enrolling in the Traditional Blue PPO 812 plan after June 1, 2004 are required to make contributions equal to the difference between the Traditional Blue PPO 812 plan premium and the highest premium of any other plan offered to that retiree.

The table below defines employee eligibility and the required contribution level for each class of employee.

		Eligi	Eligibility		
		Health	Benefits		
Employee			Years	15%	
Group	Hire Date	Age	of Service	Contribution	
CSEA	Before 01/01/2008	55	10	No	
CSEA	01/01/2008-07/26/2012	58	15	No	
CSEA	After 07/26/2012	58	15	Yes	
BWNYWW	Before 01/01/1984	56	35	No	
BWNYWW	01/01/1984-01/01/2006	58	15	No	
BWNYWW	01/01/2006-07/26/2012	58	20	No	
BWNYWW	After 07/26/2012	58	20	Yes	
Non-represented	All	55	15	Yes	
Non-represented	All	Age + Years of	of Service =70	Yes	

Employees Covered by Benefit Terms—At December 31, 2019 and 2018, the following employees were covered by the benefit terms:

	2019	2018
Inactive employees or beneficiaries currently receiving benefit payments	185	188
Active employees	212	227
	397	415

Total OPEB Liability—The Authority's total OPEB liability of \$90,082,536 was measured as of December 31, 2019 and was determined by an interim actuarial valuation as of that date. For purposes of determining benefit obligations and costs as of the December 31, 2019 measurement date, participant data as of January 1, 2018 is used. Benefit obligations are projected to measurement date using roll forward techniques by assuming no actuarial gains and losses in the interim, except for those assumption changes necessary to reflect the assumptions as of the measurement date.

Actuarial Methods and Other Inputs—The total OPEB liability in the December 31, 2019 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods in the measurement, unless otherwise specified:

Reporting date — December 31, 2019 Measurement date — December 31, 2019 Actuarial valuation date — January 1, 2018 Discount rate as of the measurement date — 2.75% Rate of compensation increase — 2.5 % Consumer price index (CPI) — 2.25% Inflation rate (chained CPI) — 2.0 % Actuarial cost method — Entry age normal Amortization method — Level percentage Amortization period — 5.926 years

Mortality — The sex-distinct Pri.H-2012 Mortality Tables for employees and healthy annuitants, adjusted for mortality improvements with Scale MP-2019 mortality improvement scale on a generational basis.

Disability — Rates of decrement due to disability are assumed to be 0%

Turnover — Rates of turnover are based on experience under the New York State Employees' Retirement System (State Plan).

Retirement incidence — Rates of retirement are based on the experience under the State Plan.

Election percentage — It was assumed 97% of future retirees eligible for coverage will elect postretirement healthcare coverage.

Spousal coverage — 80% of future retirees are assumed to elect spousal coverage upon retirement.

Per capita costs — All retiree health plans are offered through LMHF. Actual claims experience from LMHF was used to develop retiree claim costs for ECWA.

Annual rate of increase in the consumer price index — CPI of 2.25% was assumed for purposes of developing the rate of increase in healthcare costs. C-CPI of 2.00% was assumed for purposes of determining future increases in limits corresponding to the excise tax of the Affordable Care Act on high cost employer-sponsored health plans. These assumptions are consistent with historical CPI and chained CPI as well as future expectations.

Healthcare cost trend rate — The assumed rates of increase in health care costs are presented in the table below. The trend rate schedule has been developed based on a review of published National trend survey data in relation to the retiree health plan offerings and updated long-term rates based on the Society of Actuaries Long Term Healthcare Cost Trends Model v2018c (The Getzen model), as well as Labor Management Healthcare Fund's expectations.

		Post-65	
Pre-65	Post-65	Medicare	Prescription
Medical	Medical	Advantage	Drug
7.000%	6.250%	5.000%	10.000%
7.000%	6.000%	5.000%	10.000%
6.750%	5.750%	4.750%	10.000%
6.500%	5.500%	4.500%	10.000%
6.237%	5.404%	4.500%	9.154%
5.975%	5.308%	4.500%	8.308%
5.712%	5.212%	4.500%	7.462%
5.450%	5.117%	4.500%	6.617%
4.925%	4.925%	4.500%	4.925%
4.706%	4.706%	4.500%	4.706%
4.562%	4.562%	4.500%	4.562%
4.469%	4.469%	4.469%	4.469%
3.886%	3.886%	3.886%	3.886%
	Medical 7.000% 7.000% 6.750% 6.500% 6.237% 5.975% 5.712% 5.450% 4.925% 4.706% 4.562% 4.469%	Medical Medical 7.000% 6.250% 7.000% 6.000% 6.750% 5.750% 6.500% 5.500% 6.237% 5.404% 5.975% 5.308% 5.712% 5.212% 5.450% 5.117% 4.925% 4.925% 4.706% 4.706% 4.469% 4.469%	Pre-65 Post-65 Medicare Medical Medical Advantage 7.000% 6.250% 5.000% 7.000% 6.000% 5.000% 6.750% 5.750% 4.750% 6.500% 5.500% 4.500% 6.237% 5.404% 4.500% 5.975% 5.308% 4.500% 5.712% 5.212% 4.500% 5.450% 5.117% 4.500% 4.925% 4.925% 4.500% 4.706% 4.706% 4.500% 4.562% 4.562% 4.500% 4.469% 4.469% 4.469%

Changes In the Total OPEB Liability — The following table presents the changes to total OPEB liability for fiscal years ending December 31, 2019 and December 31, 2018.

	Total OPEB Liability		
	Decem	ber 31,	
	2019	2018	
Beginning balance	\$ 89,646,879	\$ 99,640,307	
Changes for the year:			
Service cost	2,766,281	3,378,431	
Interest cost	3,389,502	3,372,947	
Change of benefit terms	-	119,294	
Differences between expected and actual experience	(13,271,429)	191,341	
Changes of assumptions or other inputs	9,655,142	(14,821,432)	
Actual benefit payments	(2,103,839)	(2,234,009)	
Net changes	435,657	(9,993,428)	
Ending balance	<u>\$ 90,082,536</u>	<u>\$ 89,646,879</u>	

Sensitivity of the Total OPEB Liability to the Change in the Discount Rate and Healthcare Cost Trend Rate—The discount rate and healthcare cost trend assumptions can have an impact on the net OPEB liability. Healthcare costs can be subject to considerable volatility over time. The following table presents the effect on the net OPEB liability of a 1% change in the discount rate and a 1% change in the initial (7.0%)/ultimate (3.78%) healthcare cost trend rates.

		2019		2018
Current discount rate		2.75%		3.71%
Current healthcare cost trend rate - initial/ultimate	7	.00%/3.78%	7	.00%/3.78%
OPEB liability at:				
Current discount rate	\$	90,082,536	\$	89,646,879
1% increase in discount rate		76,088,814		76,301,598
1% decrease in discount rate		108,354,454		106,545,777
OPEB liability at:				
Current healthcare cost trend rates	\$	90,082,536	\$	89,646,879
1% increase in healthcare cost trend rates		109,157,347		112,487,720
1% decrease in healthcare cost trend rates		75,235,186		72,855,121

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources related to OPEB—For the years ended December 31, 2019 and 2018 the Authority recognized annual OPEB expense of \$4,669,997 and \$3,344,867, respectively. The Authority reports deferred outflows of resources and deferred inflows of resources due to differences during the measurement period between certain of the employer's contributions and its proportionate share of the total of certain contributions from employers included in the collective net OPEB liability are required to be determined. The table below presents the Authority's deferred outflows and inflows of resources at December 31, 2019 and 2018.

	Deferred Outflows of Resources			Deferred Inflows of Resources				
	2019 2018		2019		2018			
Differences between expected								
and actual experience	\$	133,777	\$	162,559	\$	11,031,903	\$	-
Changes in assumptions		8,025,857		-		10,362,518		12,591,975
Total	\$	8,159,634	\$	162,559	\$	21,394,421	\$	12,591,975

The amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ending	g Dec	ember 31,
2020	\$	(2,810,916)
2021		(2,810,916)
2022		(2,810,916)
2023		(2,810,916)
2024		(1,991,123)

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9. NET POSITION AND RESERVES

The Authority financial statements utilize a net position presentation. Net position is categorized into net investment in capital assets, restricted and unrestricted.

Net investment in capital assets—This category groups all capital assets into one component of net position. Accumulated depreciation and the outstanding balances of debt that are attributable to the acquisition, construction or improvement of these assets reduce the balance in this category.

	December 31,		
	2019	2018	
Capital assets, net of accumulated depreciation	\$ 399,107,598	\$ 392,868,668	
Related debt:			
Water revenue bonds issued for capital assets	(54,283,384)	(58,488,384)	
Bond premium	(6,614,730)	(6,933,549)	
Bond discount	113,841	120,034	
Total debt	(60,784,273)	(65,301,899)	
Advanced refunding of Series 2007 Bonds	1,118,244	1,184,347	
Unspent bond proceeds	7,508,757	19,461,585	
Net investment in capital assets	\$ 346,950,326	\$ 348,212,701	

Restricted net position—This category presents external restrictions imposed by creditors, grantors, contributors, or laws and regulations of other governments and restrictions imposed by law through constitutional provisions or enabling legislation.

For the years ended December 31, 2019 and 2018, net position was restricted for the following purposes:

• **Debt Service Reserve Account**—During 1998, the Authority established a Debt Service Reserve Account as required by the 1998D Series bond resolution. The bond resolution requires a reserve amount equal to the average of the annual installments of debt service. The required amount was determined by EFC and remained on deposit until the final maturity on October 15, 2019. There is no reserve for these bonds on December 31, 2019.

During 2003, per the 2003F bond resolution the Authority established a Debt Service Reserve Account from a portion of the 2003F bond proceeds. The required debt service reserve is based on ten percent of the total principal of the loan. The required amount was determined by EFC and must remain on deposit until the bonds mature.

• **Debt Service Account**—The 1992 Fourth Resolution, 1998D, 2003F, 2016 and 2018 Supplemental Fourth Resolution bond resolutions require that a specified amount of funds be maintained in the Debt Service Account. The requirements of the Debt Service Account state that the Authority must deposit funds to provide for monthly interest and principal payments to start not later than six months prior to the payment of interest and twelve months prior to the payment of principal.

Unrestricted net position—This category represents the amount of net position the Authority has not restricted for any project or other purpose. Management intends to utilize a portion of unrestricted net position to finance the Authority's projected five-year capital spending, which will require future financing in excess of \$235,000,000.

When an expense is incurred for purposes for which both restricted and unrestricted amounts are available, the Authority's policy concerning which to apply first varies with the intended use and associated legal requirements. Management typically makes this decision on a transactional basis.

10. COMMITMENTS AND CONTINGENCIES

The Authority maintains and operates certain facilities employed in the sale and distribution of water which it leases from various local municipal water districts pursuant to lease management agreements. No financial consideration is afforded the municipalities in conjunction with these lease agreements. Such agreements generally are for at least ten-year terms and automatically renew for additional ten-year terms unless terminated by either party one year prior to expiration of the term. The agreements provide that the municipalities obtain water exclusively from the Authority. Future maintenance and operating costs to be incurred by the Authority under such arrangements presently in effect are not determinable.

The Authority is also committed under various operating leases for the use of certain equipment and office space. Rental expense for 2019 and 2018 aggregated \$261,777 and \$254,589, respectively. Future commitments under these leases total \$635,708.

The Authority is subject to various laws and regulations, which primarily establish uniform minimum national water quality standards. The Authority has established procedures for the on-going evaluation of its operations to identify potential exposures and assure continued compliance with these regulatory standards.

The Authority is involved in litigation and other matters arising in its normal operating, financing, and investing activities. While the resolution of such litigation or other matters could have a material effect on earnings and cash flows in the year of resolution, the Authority has obtained various liability, property, and workers' compensation insurance policies which would reduce exposure to loss on the part of the Authority. Management has made provisions for anticipated losses in the accompanying financial statements as advised by legal counsel. None of this litigation and none of these other matters are expected to have a material effect on the financial condition of the Authority at this time.

11. SUBSEQUENT EVENTS

Management has evaluated subsequent events through March 24, 2020, which is the date the financial statements are available for issuance and have determined that there are no subsequent events that require disclosure under generally accepted accounting principles.

REQUIRED SUPPLEMENTARY INFORMATION

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ERIE COUNTY WATER AUTHORITY Schedule of the Authority's Proportionate Share of the Net Pension Liability—New York State Employees' Retirement System Last Six Fiscal Years*

	Year Ended December 31,						
	2019	2018	2017	2016	2015	2014	
Measurement date	March 31, 2019	March 31, 2018	March 31, 2017	March 31, 2016	March 31, 2015	March 31, 2014	
Authority's proportion of the net pension liability/(asset)	0.0555064%	0.0546663%	0.0561145%	0.0558137%	0.0572349%	0.0572349%	
Authority's proportionate share of the net pension liability/(asset)	<u>\$ 3,932,796</u>	<u>\$ 1,764,324</u>	<u>\$ 5,272,641</u>	\$ 8,958,247	<u>\$ 1,933,536</u>	<u>\$ 2,586,366</u>	
Authority's covered payroll	\$ 16,158,109	\$ 16,019,184	\$ 15,648,444	\$ 15,035,523	\$ 15,112,883	\$ 15,752,018	
Authority's proportionate share of the net pension liability/(asset) as a percentage of its covered payroll	24.3%	11.0%	33.7%	59.6%	12.8%	16.4%	
Plan fiduciary net position as a percentage of the total pension liability	96.3%	98.2%	94.7%	90.7%	97.9%	97.2%	

* Information prior to the year ended December 31, 2014 is not available.

ERIE COUNTY WATER AUTHORITY Schedule of Contributions to the New York State Employees' Retirement System Last Ten Fiscal Years (Dollar amounts in thousands)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Contractually required contribution Contributions in relation to required contribution Contribution deficiency (excess)	\$ 2,333 2,333	\$ 2,327 2,327	\$ 2,339 2,339	\$ 2,387 2,387	\$ 2,595 2,595	\$ 2,996 2,996 -	\$ 2,905 2,905	\$ 2,564 2,564	\$ 2,208 2,208	\$ 1,658 1,658
Covered employee payroll	\$ 16,588	\$ 16,272	\$ 15,800	\$ 15,567	\$ 15,708	\$ 15,438	\$ 14,800	\$ 14,550	\$ 14,446	\$ 14,431
Contributions as a percentage of covered payroll	14.064%	14.301%	14.804%	15.334%	16.520%	19.407%	19.628%	17.622%	15.285%	11.489%

ERIE COUNTY WATER AUTHORITY Schedule of Changes in the Authority's Total OPEB Liability and Related Ratios Last Two Fiscal Years*

	Year Ended December 31,					
	2019			2018		
Total OPEB Liability	¢	2 766 201	¢	2 270 421		
Service cost	\$	2,766,281	\$	3,378,431		
Interest cost		3,389,502		3,372,947		
Change of benefit terms Differences between expected and actual experience		- (13,271,429)		119,294 191,341		
Change of assumptions or other inputs		9,655,142		(14,821,432)		
Actual benefit payments		(2,103,839)		(14,821,432) (2,234,009)		
Net change in total OPEB Liability		435,657		(9,993,428)		
Total OPEB liability—beginning		89,646,879		99,640,307		
	¢		\$	<u> </u>		
Total OPEB liability—ending	<u>\$</u>	90,082,536	D	89,646,879		
Plan fiduciary net position						
Contributions—employer	\$	2,103,839	\$	2,234,009		
Actual benefit payments		(2,103,839)		(2,234,009)		
Net change in plan fiduciary net position		-		-		
Plan fiduciary net position—beginning		-				
Plan fiduciary net position—ending	\$		\$	-		
Authority's net OPEB liabilility—ending	<u>\$</u>	90,082,536	<u>\$</u>	89,646,879		
Plan's fiduciary net position as a percentage of the total OPEB liability		0.00%		0.00%		
Covered-employee payroll	\$	16,908,970	\$	16,271,826		
Total OPEB liability as a percentage of covered-employee payroll		532.75%		550.93%		

*Information prior to the year ended December 31, 2018 is not available.

The note to the Required Supplementary Information is an integral part of this schedule.

ERIE COUNTY WATER AUTHORITY Note to the Required Supplementary Information Year Ended December 31, 2019

1. OPEB LIABILITY

Changes of assumptions—The assumption changes as of December 31, 2019 include a change in the discount rate from 3.71% to 2.75% resulting in a deferred inflow of resources, a change to sex distinct Pri.H-12 mortality tables with projected mortality improvement scale MP-2019, and updated health care trends resulted in deferred outflows of resources. The repeal of the Health Insurer Fee and the high-cost plan tax known as the 'Cadillac tax' on December 20, 2019 also resulted in a deferred outflow of resources.

Changes in expected versus actual experience—Expected benefit payments to retirees used to calculate the OPEB liability were higher than the actual payments resulting in a deferred inflow of resources.

Changes in benefit terms—There were no changes in benefit terms in 2019.

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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

The Board of Commissioners Erie County Water Authority

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Accounting Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities of the Erie County Water Authority (the "Authority") as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated March 24, 2020.

Internal Control over Financial Reporting

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

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

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

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

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

March 24, 2020

INDEPENDENT AUDITORS' REPORT ON COMPLIANCE WITH SECTION 2925(3)(f) OF THE NEW YORK STATE PUBLIC AUTHORITIES LAW

The Board of Commissioners Erie County Water Authority

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the business-type activities of the Erie County Water Authority (the "Authority"), as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and we have issued our report thereon dated March 24, 2020.

In connection with our audit, nothing came to our attention that caused us to believe that the Authority failed to comply with Section 2925(3)(f) of the New York State Public Authorities Law regarding investment guidelines during the year ended December 31, 2019. However, our audit was not directed primarily toward obtaining knowledge of such noncompliance. Accordingly, had we performed additional procedures, other matters may have come to our attention regarding the Authority's noncompliance with the above rules and regulations.

The purpose of this report is solely to describe the scope and results of our testing. This communication is not suitable for any other purpose.

March 24, 2020

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