Kevane
Grant Thornton

Financial Statements and Report of Independent Certified Public Accountants

Puerto Rico Aqueduct and Sewer Authority

(A Component Unit of the Commonwealth of Puerto Rico)

June 30, 2019 and 2018

Puerto Rico Aqueduct and Sewer Authority
(A Component Unit of the Commonwealth of Puerto Rico)

Table of Contents

Kevane
Grant Thornton

Kevane Grant Thornton LLP
33 Bolivia Street
Suite 400
San Juan, Puerto Rico 00917-2013

T + 1 787 754 1915

F + 1 787 751 1284

E kgt@pr.gt.com

linkedin.com/company/kevane-grant-thornton
facebook.com/kevanegrantthornton

Report of Independent Certified Public Accountants

To the Board of Directors of
Puerto Rico Aqueduct and Sewer Authority:

Report on the Financial Statements

We have audited the accompanying financial statements of the Puerto Rico Aqueduct and Sewer Authority (a component unit of the Commonwealth of Puerto Rico) (“the Authority”), which comprise the balance sheets as of June 30, 2019 and 2018, and the related statements of revenues, expenses and changes in net position, and cash flows for the years then ended, and the related notes to the financial statements.

Management’s Responsibility for the Financial Statements

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

Auditor’s Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America, and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States of America. Those standards require that we plan and perform the audit 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 Authority’s preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority’s internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Kevane
Grant Thornton

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Puerto Rico Aqueduct and Sewer Authority as of June 30, 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

Restatement of Prior Period Financial Statements
As discussed in Note 19 to the financial statements, as of July 1, 2017, the net position of the Authority has been restated to correct prior period misstatements related to the computation of depreciation expense and to recognize the Authority's proportionate share of other postretirement benefit obligation of the Puerto Rico Government Employees Retirement System (ERS) under Government Accounting Standard Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pension*, which had not been previously recognized. Our opinion is not modified in respect to this matter.

Change in Accounting for Pensions and Related Assets
As discussed in Notes 1 and 14, as a result of the implementation of the pay-as-you-go (PayGo) system, pursuant to Act 106-107, the Employees Retirement System Plan did no longer meet the criteria of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions-an amendment of GASB Statement No. 27* to be considered a plan that is administered through a trust or equivalent arrangement and; therefore, was required to apply the guidance of GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets that are not within the Scope of GASB Statement No. 68*, *an amendment of Certain Provisions of GASB Statements No. 67 and 68*. The impact of this change was accounted for prospectively. Our opinion is not modified in respect to this matter.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 4 through 22, the schedule of the Authority's proportionate share of the total pension liability on page 83 and, the schedule of funding progress for postemployment healthcare benefits on page 84, and the schedule of the Authority's proportionate share of the ERS for postemployment benefits on page 85, be presented to supplement the financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries to 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.

Kevane
Grant Thornton

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that comprise the Authority's basic financial statements. The supplemental schedule of financial results and debt coverage calculations per the 2012 amended and restated master agreement of trust ("schedule") on pages 86-87 is presented as additional information and is not a required part of the basic financial statements. The schedule is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements and certain additional procedures, including comparing and reconciling financial statements or to the basic financial statements themselves, and other additional procedures in accordance with the auditing standards generally accepted in the United States. In our opinion, the schedule is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 13, 2021, on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

Kevane Grant Thornton LLP

San Juan, Puerto Rico
October 13, 2021.

CERTIFIED PUBLIC ACCOUNTANTS
(OF PUERTO RICO)
LICENSE 217
EXPIRES DECEMBER 1, 2022.
STAMP E448649
OF THE PUERTO RICO SOCIETY OF
CPAS WAS AFFIXED TO THE FILE
COPY OF THIS REPORT.

As management of the Puerto Rico Aqueduct and Sewer Authority ("the Authority" or "PRASA"), we offer readers of the Authority's annual financial report our discussion and analysis of the Authority's financial performance during the fiscal years ended on June 30, 2019 and 2018. Please read it in conjunction with the Authority's financial statements, which follow this section. Numbers included are rounded to facilitate the readers' analysis.

June 30, 2019 and 2018 Financial Highlights

- The Authority's net position in fiscal year 2019 was ($433.1) million, which decreased by $418.4 million when compared to fiscal year 2018 net position of ($14.6) million (as restated). The decrease in the net position is mostly as a result of the change in implementation of the pension "pay-as-you-go" (PayGo) methodology by the Employees Retirement System of the Government of Puerto Rico ("ERS"), which required the transition from the Governmental Accounting Standards Board ("GASB") Statement No. 68 to GASB Statement No. 73 to record the total pension liability, with an impact of $548.2 million.

- Total operating revenues decreased by $24.1 million, primarily driven by the reduction in insurance proceeds of $143.9 million for business interruption received during fiscal year 2018 as a consequence from the impact of Hurricane María, offset by an increase in water and sewer revenues by $88.9 million and a decrease in the bad debt expense by $31.0 million. Capital contributions decreased by $26.6 million, related to lower reimbursements from Federal Emergency Management Agency ("FEMA") to recover a portion of hurricane-related incremental expenses.

- During fiscal year 2019, water and sewer service revenues increased by $119.9 million, or 12.7%, as fiscal year 2018 revenues were affected by service interruptions caused by Hurricane María.

- Operating expenses increased by $90.1 million mainly due to the effect of $548.2 million related to the transition from GASB Statement No. 68 to GASB Statement No. 73, and a reduction of $162.4 million in pension expense presented within payroll and payroll related expense. Additionally, payroll and payroll related expense was reduced by $48.2 million due to the cost of preretirement program recorded in fiscal year 2018. Also, as part of the effort and recovery from damages caused by Hurricane María, the Authority presented a decrease of $61.7 million in other operating expenses, a decrease of $9.0 million in repairs and maintenance of capital assets, however there was an increase in other operating expenses, such as electricity by $9.9 million, insurance by $8.5 million, material and replacements by $4.6 million and chemicals by $3.2 million.

- Nonoperating expenses decreased by $22.8 million, or 9.2%, to a net expense of $225.1 million. The major variance is due to an increase in interest and other income by $18.9 million.

- Capital contributions decreased by $26.6 million, from $104.5 million to $77.9 million, primarily as a result of lower proceeds of funds obligated by FEMA during fiscal year 2019 to reimburse the Authority for expenses incurred in its system recovery process after the 2017 Hurricanes impact.

- Total assets and deferred outflow of resources decreased by $434.5 million to $7,147.7 million or 5.7% when compared to $7,582.1 million in fiscal year 2018, as restated. Capital assets decreased by $215.7 million, mainly as a result of the fiscal year depreciation and amortization of $274.7 million and deferred outflows of resources decreased by $204.5 million mainly due to the effect of the transition from GASB Statement No. 68 to GASB Statement No. 73. Current assets decreased by $52.6 million, mainly due to the collection of $186 million of accounts receivable from insurance companies. However, there was an increase in cash and cash equivalents of $144.2 million, and restricted cash and cash equivalent of $73.5 million.

- Total liabilities and deferred inflow of resources decreased by $16.0 million to $7,580.8 million or 0.2%, when compared to $7,596.8 million in fiscal year 2018, as restated. The results are primarily trended by an increase in pension liability of $265.6 million. As a result of the implementation of the PayGo method, pursuant to Act 106-2017, the Authority, starting in fiscal year 2019, implemented GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets that are not within the scope of GASB Statement No. 68.* This Statement applies to pension plans that do not meet the GASB Statement No. 68 requirements because they do not have dedicated assets or assets held in trust for making pension payments, among other considerations. Also, the variance reflects an increase in accrued interest of $34.8 million, offset by a decrease in account payables of $100.3 million, decrease in accrued liabilities of $53.0 million, a decrease in long term debt of $72.2 million, a decreased in compensated absences and postemployment and other benefits by $16.9 million, and a decrease in unearned revenue of $6.4 million. Deferred inflow of resources decreased by $69.1 million mainly as a result of the implementation of GASB Statement No. 73.

June 30, 2018 (as restated) and 2017 (as originally reported) Financial Highlights

During fiscal year 2019, the Authority noted an understatement in accumulated depreciation due to change in estimates made in prior periods. Consequently, a prior period adjustment of $286.3 million was made. The comparative information in the management's discussion and analysis related to fiscal years 2018 and 2017 are presented as restated and as originally reported, respectively.

- On September 6, 2017, Puerto Rico was affected by Category 5 Hurricane Irma, one of the strongest storms ever recorded in the Atlantic, with winds of up to 185 miles an hour. On September 20, 2017, Hurricane María, an extremely destructive category 4 hurricane, made landfall in Puerto Rico, bringing sustained winds of 155 miles per hour and significant rainfall over a 30-hour period. Hurricanes Irma and María *(the "Hurricanes')* caused together devastating damage to the island. Both Hurricanes badly damaged the electric power infrastructure, which in turn affected the continuity of water and sewer services to numerous customers throughout the island. The Hurricanes also damaged most of the Authority's infrastructure island wide. The operational and financial impact consisted of (i) lower customer consumption during fiscal year 2018 (despite 90% of the Authority's service being restored by November 2017); (ii) higher rate of uncollectible bills in all rate categories (residential, commercial, industrial and government); (iii) lower revenues from other services and fees (i.e., disconnection/reconnection fees); and (iv) higher expense costs to normalize operations and to address response and recovery needs (i.e., diesel costs for generators operation, security, chemicals, overtime, generators rental and water distribution contracts). The Authority's infrastructure damage estimate was $769 million, including a projection for potential additional unidentified damages of ancillary facilities, but excluding the unknown impact on buried assets. This estimate, however, only considers repairing and replacing the systems to exactly (or similar to) their condition prior to the hurricanes, thereby excluding the implementation of any resiliency projects to mitigate or reduce future risks related to hurricanes or other natural disasters or enabling the systems assets to comply with current regulatory standards. The Authority estimates that revenue reduction and incremental expenses incurred and committed as a result of the storms amounted to $293 million and $220 million, respectively.

- The Authority's net position in fiscal year 2018, as restated, decreased by $300.4 million when compared to fiscal year 2017 net position of ($285.8) million, as restated, mostly as a result of the Hurricane's impact on the Authority's financial condition. The information for fiscal year 2017 presented in the summary tables related to the Authority's net position and changes in net position (included in pages 8 and 16, respectively), is presented as originally reported and therefore the change in net position presents an unadjusted decrease of $642 million. The decrease in net position is due to an increase in operating expenses by $248.3 million (including depreciation and amortization) and an increase in net non-operating expenses by $1 million, net of an increase in operating revenues by $53 million mainly as a result of business interruption insurance proceeds and an increase in capital contributions by $100.5 million, mostly from the Federal Emergency Management Agency ("FEMA") to recover a portion of incremental expenses related to the Hurricanes.

- Operating revenues increased by $53 million to $1,085 million, or 5.1%. During fiscal year 2018, the Authority recognized insurance proceeds for business interruption of $144.0 million from the Hurricane María revenue loss claim. When comparing the water and sewer service revenue for fiscal year 2018 versus prior year, revenues decreased by $91.0 million, even after an implemented rate adjustment, mainly as result of the services interruption caused by the Hurricanes.

- Operating expenses, including depreciation and amortization, increased by $248.3 million to $1,242 million. On fiscal year 2018, after the Hurricanes impact, the Authority through an engineer's firm performed an assets and properties assessment, which included site visits to the principal facilities and properties to identify and estimate damages to the Authority system. Based on such analysis the Authority registered and asset impairment of $194.1 million, net of insurance proceeds of $135 million (net of adjuster's broker fee) following GASB Statement No. 42 (*Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*). GASB Statement No. 42 defines asset impairment as a significant, unexpected decline in the service utility of a capital asset. The impairment was calculated by using the Restoration Cost Approach which derives the amount of impairment from the estimated cost to restore the utility of the capital asset to its original condition.

- The Authority incurred additional expenses as part of the effort to re-establish the water and wastewater service on the island resulting in an increase of $88 million in operating expenses, including an increase of $26.4 million in repairs and maintenance expense, payroll and payroll related expenses by $7.1 million. Also, other operating expenses including security services, electric generators rentals units, diesel for generators and water transport increased by $85.5 million. At the same time, the Hurricanes impact resulted in savings on various operating expenses, such as electricity by $22.1 million, materials and replacement by $6.1 million; professional and consulting services by $3.0 million; and chemicals by $2.8 million.

- Non-operating expenses increased by $1 million, or 0.4% to a net expense of $247.8 million, including mostly the interest expense for the period.

- Capital contributions increased by $100.5 million to $104.5 million, primarily as a result of an increase of $97.5 million in funds obligated by FEMA to reimburse the Authority a portion of the costs incurred in the system recovery process after the Hurricanes impact.

- Total assets and deferred outflow of resources decreased by $424.4 million to $7,582.1 million when compared to $8,006.6 million in fiscal year 2017. During fiscal year 2019, the Authority noted an understatement in accumulated depreciation due to change in estimate made in prior periods. As consequence, a prior period adjustment of $286.3 million was made. The reduction is also due to a decrease in capital assets of $552.0 million, caused mainly by depreciation and amortization of $272.5 million, the recognition of the assets impairment prior to insurance proceeds of $329 million, asset additions of $52.2 million, and a decrease in deferred outflows of resources of $41.2 million, offset by an increased in current assets of $455.1 million, which included an increase by $186 million in receivable from insurance companies and an increase in cash and cash equivalent of $147.9 million, and in restricted cash of $4.5 million.

- Total liabilities and deferred inflows of resources increased by $218.5 million to $7,596.8 million or 2.9%, which reflect an increase in account payables of $70.6 million, an increased accrued liabilities of $70.3 million, an increase in compensated absences, postemployment and other benefits of $94.7 million, an increased in accrued interest increase of $52.2 million, and an increase in unearned revenue of 9.6 million; net of a decreased in pension liability of $168.7 million, and a decrease in long term debt of $51.8 million.

Overview of the Financial Statements

This annual report includes the unaudited management's discussion and analysis report, the report of independent certified public accountants, the basic financial statements and the required supplementary information of the Authority. The basic financial statements include notes that explain in more detail the information contained in the basic financial statements.

Required Financial Statements

The financial statements report the financial position and operations of the Puerto Rico Aqueduct and Sewer Authority as of and for the years ended June 30, 2019 and 2018, which include Balance Sheets, Statements of Revenues, Expenses and Changes in Net Position, Statements of Cash Flows and the notes to financial statements.

Financial Analysis of the Authority

The balance sheets and the statements of revenues, expenses, and changes in net position, report the net position of the Authority and the changes therein. The Authority's net position – the difference between assets and liabilities – can be used to measure its financial health or financial position. Increases or decreases in the Authority's net position are one indicator of whether its financial health is improving or deteriorating. However, other nonfinancial factors need to be considered such as changes in economic conditions and new or changed government regulations or accounting regulations.

Analysis of Financial Results

The following table provides a summary of the Authority's net position as of June 30, 2019 and 2018 (in thousands):

	June 30		
	2019	2018 As Restated	Change
Current and other assets	$ 1,080,129	$ 1,094,454	$ (14,325)
Capital assets, net	5,944,534	6,160,192	(215,658)
Deferred outflow of resources	123,031	327,511	(204,480)
Total assets and deferred outflows of resources	7,147,694	7,582,157	(434,463)
Long-term debt outstanding	4,914,850	4,987,101	(72,251)
Other liabilities	2,551,287	2,425,940	125,347
Deferred inflow of resources	114,618	183,739	(69,121)
Total liabilities and deferred inflows of resources	7,580,755	7,596,780	(16,025)
Net position:			
Net investment in capital assets	1,324,192	1,415,689	(91,497)
Restricted	144,449	122,818	21,631
Unrestricted deficit	(1,901,702)	(1,553,130)	(348,572)
Total net position	$ (433,061)	$ (14,623)	$ (418,438)

The following table provides a summary of the Authority's net position as of June 30, 2018 (as restated) and 2017 (in thousands):

	June 30		
	2018 As Restated	2017 As Originally Reported	Change
Current and other assets	$ 1,094,454	$ 639,324	$ 455,130
Capital assets, net	6,160,192	6,998,570	(838,378)
Deferred outflow of resources	327,511	368,710	(41,199)
Total assets and deferred outflows of resources	7,582,157	8,006,604	(424,447)
Long-term debt outstanding	4,987,101	5,044,320	(57,219)
Other liabilities	2,425,940	2,295,965	129,975
Deferred inflow of resources	183,739	37,956	145,783
Total liabilities and deferred outflows of resources	7,596,780	7,378,241	218,539
Net position:			
Net investment in capital assets	1,415,689	2,195,602	(779,913)
Restricted	122,818	79,606	43,212
Unrestricted deficit	(1,553,130)	(1,646,845)	93,715
Total net position	$ (14,623)	$ 628,363	$ (642,986)

Net Position

June 30, 2019 and 2018

The Authority's net position for the fiscal year ended June 30, 2019 was approximately ($433.1) million. This is a decrease of $418.4 million, from the net position, as restated, as of June 30, 2018 of $14.6 million.

Total assets and deferred outflows decreased by $434.5 million, or 5.7%, during fiscal year ended June 30, 2019, primarily due to a decrease in deferred outflows of resource of $204.5 million and a decrease in capital assets of $215.7 million.

Current and total restricted assets decreased by $14.3 million, principally due to a decrease of receivable from insurance companies of $186.0 million, and a decrease of $56.4 million in accounts receivable. The decrease was partially offset by an increase in cash and cash equivalents of $144.2 million, increase in total restricted cash of $73.5 million, and an increase of $8.5 million in accounts receivable from federal agencies.

For the fiscal year 2019, restricted cash, unrestricted cash, cash equivalents and other deposits increased by $217.8 million compared with fiscal year 2018. The cash and cash equivalents increase was primarily due to the proceeds received of $186.0 million from insurance companies, $61.9 million received from FEMA and $32.4 million deposited into the operational reserve fund account, which is held by the Authority's trustee agent, In addition, during fiscal year 2019, the Authority deposited $61.3 million in the capital improvement fund account to finance its capital improvement program.

Capital assets decreased by $215.7 million, or 3.5% to $5,944.5 million, primarily as a result of the depreciation and amortization of the period by $274.7 million, net of additions of $62.9 million. On fiscal year 2019, the Authority corrected an error in the computation of depreciation expense, which resulted in a prior period adjustment to accumulated depreciation of $286.3 million. For additional details, refer to Note 19.

Deferred outflows of resources decreased by $204.5 million, mainly as result of the transition to GASB Statement No. 73, which required a change in the pension liability proportion assigned to the Authority. After considering the adoption of GASB Statement No. 73, the Authority's share of the total pension liability increased to 6.831% and its share of the total pension liability was $1.67 billion. Under GASB Statement No. 73, the Authority's share is based on the ratio of the Authority's benefit payments made to the total benefit payments by ERS for the corresponding fiscal year.

Total liabilities and deferred inflows of resources decreased by $16.0 million to $7,580.8 million, or 0.2% when compared with fiscal year 2018 (as restated) total liabilities and deferred inflows of resources of $7,596.8 million. On fiscal year 2019, the Authority recognized its share of the healthcare benefit provided by the ERS, recorded following GASB Statement No. 75, which resulted in a prior period adjustment of $48.3 million.

Total current liabilities decreased by $124 million, driven by a decrease of $100.3 million in accounts payables, a decrease of $53.0 million in accrued liabilities and a decrease of $6.4 million in unearned revenue, offset by an increase of $34.8 million in accrued interest.

Total non-current liabilities and deferred inflows of resources increased by $108.0 million. The increase was mainly due to an increase in pension liability of $267.3 million, as a result of the implementation of GASB Statement No. 73. In addition, the non-current portion on long term debt decreased by $74.8 million and there was a decrease in compensated absences, postemployment and other noncurrent benefits liability of $16.6 million. The deferred inflow of resources decreased by $69.1 million during fiscal year 2019.

June 30, 2018 (as restated) and 2017 (as originally reported)

The Authority's net position for fiscal year ended June 30, 2018 was a deficit of $14.6 million, as restated. This is a decrease of $300.4 million from the net position as of June 30, 2017, of $285.8 million, as restated. The information for fiscal year 2017 presented in the summary tables related to the Authority's net position and changes in net position, (included in pages 8 and 16, respectively) is presented as originally reported and therefore the change in net position presents an unadjusted decrease of $642 million.

Total assets and deferred outflows decreased by $424.2 million during the fiscal year ended June 30, 2018, primordially due to the recognition of $329.2 million in fixed assets impairment in connection with the impact of hurricanes Irma and María, net of related insurance proceeds and the effect of prior period adjustment of $286.3 million as previously discussed.

Current and other assets increased by $455.1 million, principally due to an increase of $147.9 million in cash and cash equivalents due to the receipt of $93 million from insurance companies proceeds, an increase of $39.9 million in current restricted cash and cash equivalents, an increase of $186 million in accounts receivable from insurance companies, an increase of $39.9 million in account receivable, and an increase of $26.3 million in accounts receivable from federal agencies.

For the fiscal year 2018, restricted cash, unrestricted cash, cash equivalents and other deposits increased by $192.4 million compared with fiscal year ended June 30, 2017. The increase is primary due to the $93 million received from insurance proceeds for business interruption and $70.6 million received from FEMA, an increase of $ 51.6 million in government accounts collections, and $38.4 million deposited into the operational reserve fund account, which is held by the Authority's trustee agent, In addition, during fiscal year 2018, the Authority deposited $77.4 million in the capital improvement fund account to finance the capital improvement program.

Capital assets decreased by $838 million to $6,160.1 million, primarily related to depreciation and amortization of $256.7 million and $3.8 million in retirements, additions for the period of $52.2 million and the recognition of an impairment of $329.2 million in capital assets being depreciated, as result of the damages caused by the impact of the Hurricanes. For the fiscal year 2018, the Authority recognized a receivable from insurance companies of $186 million, of which, $145.2 million are funds to finance capital projects for the recovery of the property damages. In addition, decrease is related the effect of prior period adjustment of $286.3 million as previously discussed.

Deferred outflow of resources decreased by $41.2 million, mainly as a result of the actuarial valuation on the GASB Statement No. 68 by $36.2 million, a decrease of $4.6 million for the amortization of losses resulting from debt refunding, and decreased in deferred outflows of resources from GASB Statement No. 75 by $0.4 million.

Total liabilities and deferred inflows of resources increased by $218.5 million to $7,596.8 million, or 2.9% when compared with fiscal year 2017 total liabilities and deferred inflows of resources of $7,378.2 million. Total current liabilities increased by $260.1 million, driven by an increase of $70.6 million in accounts payables as a result of the Hurricanes impact in operating costs and the Authority's liquidity, an increase of $70.3 million in accrued liabilities, an increase of $52.2 million in the accrued interest, an increase of $39.7 million in current portion of pension liability and an increase of $9.6 million in unearned revenue, and netted by a decrease in the current portion of long-term debt of $10.8 million.

Total non-current liabilities and deferred inflows of resources decreased by $41.6 million, the decrease is mainly due by a decrease in non-current pension liability of $208.3 million, offsetted by an increase in deferred inflows of resources form GASB Statement No. 68 of $145.8 million as results of the actuarial valuation performed by the ERS, an increase in postemployment and other benefits liability of $46.5 million, due to the recognition of early termination benefits liability for $48.2 million for employees qualifying for the Pre-Retirement Program created by Act No. 211 of 2015. In addition, the noncurrent portion on long term debt decreased by $68.0 million, principally by payments of principal on outstanding bonds.

Capital Assets

Capital assets as of June 30, 2019 and 2018 were as follows (in thousands):

	June 30		
	2019	2018 As Restated	Change
Capital assets being depreciated	$ 10,691,772	$ 10,662,414	$ 29,358
Accumulated depreciation and amortization	(5,173,316)	(4,900,596)	(272,720)
	5,518,456	5,761,818	(243,362)
Land and other nondepreciable assets	74,956	74,956	-
Construction in progress	351,122	323,418	27,704
Capital assets, net	$ 5,944,534	$ 6,160,192	$ (215,658)

As further discussed in Note 19, during fiscal year 2019, the Authority corrected an error in the computation of depreciation expense resulting in a prior period adjustment of $286.3 in accumulated depreciation. The information for fiscal year 2018 included herein is presented as restated. The decrease of $215.6 million in capital assets includes an increase of $29.4 million in capital assets being depreciated, $274.7 million in depreciation and amortization for the period, and an increase of $27.7 million in work in progress. Additions during fiscal year 2019 amounted to $62.8 million and are broken down as follows:

- $4.9 million in the Authority's capital improvement program
- $57.9 million in renewal and replacement projects.

The Authority has $351.1 million in construction in progress as of June 30, 2019. As of June 30, 2019, capital improvement programs were still halted, and the execution of projects were prioritized in order to comply with regulatory agencies and other projects were rescheduled for the following years.

Capital assets as of June 30, 2018 and 2017 were as follows (in thousands):

	June 30,		
	2018 As Restated	2017 As Originally Reported	Change
Capital assets being depreciated	$ 10,662,414	$ 10,935,871	$ (273,457)
Accumulated depreciation and amortization	(4,900,596)	(4,345,624)	(554,972)
	5,761,818	6,590,247	(828,429)
Land and other nondepreciable assets	74,956	74,913	43
Construction in progress	323,418	333,410	(9,992)
Capital assets, net	$ 6,160,192	$ 6,998,570	$ (838,378)

During fiscal year 2018, as a result of the impact of hurricanes Irma and Maria in its assets, the Authority, in compliance with GASB Statement No. 42 "Accounting and Financial Reporting for impairment of capital Assets for Insurance Recoveries", performed a capital assets and facilities assessment, and recognized an impairment loss on capital assets of $329 million. The decrease of $838.7 million in capital assets includes a reduction of $286.3 million as a result of the correction of the depreciation methodology (as fiscal year 2017 number are presented as originally reported), a reduction of $273.6 million due to the impairment and net of the additions of the year, an increase by $268.7 million in depreciation and amortization, and a reduction of $10.0 million in work in progress. Additions during fiscal year 2018 amount to $52.1 million and are broken down as follows:

- $10.4 million in the Authority's capital improvement program
- $41.7 million in renewal and replacement projects.

The Authority had $323.4 million in construction in progress as of June 30, 2018. As of June 30, 2018 and 2017, capital improvements program was halted and some projects were prioritized in order to comply with regulatory agencies and other projects were rescheduled for the following years.

Debt Administration

Long-term debt for the years ended June 30, 2019 and 2018 was as follows (in thousands):

	June 30		
Bonds payable:	2019	2018 As Restated	Change
2011 Series A Commonwealth Appropriation Bonds	$ 90,099	$ 90,099	$ -
2011 Series B Commonwealth Appropriation Bonds	102,183	102,183	-
2011 Series B Commonwealth (SA) Appropriation Bonds	162,700	162,700	-
2012 Series A Commonwealth Appropriation Bonds	56,247	56,247	-
Revenue Bonds:			
2008 Series A, Serial Bonds	25,240	25,240	-
2008 Series A, Convertible Capital Appreciation	123,635	140,285	(16,650)
2008 Series A Term Bonds	1,095,125	1,095,125	-
2008 Series B Serial Bonds	22,445	22,445	-
2008 Series A and B Revenue Refunding Term Bonds	284,755	284,755	-
2012 Series A Serial Bonds	351,400	351,400	-
2012 Series A Term Bonds	1,381,995	1,381,995	-
2012 Series B Serial Bonds	86,725	123,430	(36,705)
2012 Series B Term Bonds	107,115	107,115	-
Rural Development Serial Bonds	388,417	389,096	(679)
Add premium on bonds refunding	23,963	24,596	(633)
Less:			
Bond discount	(15,212)	(15,435)	223
Total bonds	4,286,832	4,341,276	(54,444)
Notes payable:			
Water Pollution Control and Drinking Water Treatment Revolving Funds Loans	570,275	580,275	(10,000)
Note with Government Development Bank for Puerto Rico	-	65,550	(7,807)
Note with GDB Debt Recovery Authority	57,743	-	-
Total notes	628,018	645,825	(17,807)
Long-term debt outstanding	4,914,850	4,987,101	(72,251)
Other long term liabilities:			
Pension liability	1,672,879	1,407,287	265,592
Accrued compensated absences	35,184	40,560	(5,376)
Net OPEB obligation	121,377	123,784	(2,407)
Early retirement obligation	39,109	48,242	(9,133)
Customer deposits	91,136	89,601	1,535
Total other liabilities	1,959,685	1,709,475	250,211
Total – long-term obligations	6,874,535	6,696,576	177,960
Current portion	(191,089)	(190,255)	(834)
Long-term obligations, less current portion	$ 6,683,446	$ 6,506,320	$ 177,126

The Authority's long-term debt decreased by $72.2 million, or 1.4% from $4,987.1 million as of June 30, 2018, to $4,914.8 million as of June 30, 2019.

Bonds Payable

Bonds outstanding as of June 30, 2019 decreased by $54.4 million, mainly as a result of the payments of principal on 2012 Series B of $36.7 million and on 2008 Series B Convertible Capital Appreciation of $16.7 million. During fiscal year 2019, the Authority did not issue additional bond debt.

On July 26, 2019, the Authority and the US Department of Agriculture ("USDA") (through the Rural Development program) consummated a definitive agreement to restructure the Authority's debt obligations under Rural Development ("RD") Bonds totaling $403 million, including accrued interest as of that date.

The agreement was approved by the Financial Oversight and Management Board for Puerto Rico (the "Oversight Board") pursuant to Section 207 of PROMESA and consolidates and restructures all RD Bonds into two loans with a 40-year maturity and 2% interest rate, with a $10 million annual debt service requirement from years 1 to 10 and $17 million annual debt service thereafter. The restructured RD loans were designated as Other System Indebtedness in parity with other senior debt under PRASA's Master Agreement of Trust by and between the Authority and Banco Popular de Puerto Rico as Trustee (as amended and restated, the "MAT").

On December 17, 2020, the Authority issued 2020 Series A and Series B Revenue Refunding Bonds (the "2020 Senior Bonds") in the amount of $1,351.3 million and $18.8 million, respectively, for the purpose of refunding a portion of the outstanding 2008 Series Bond of the Authority. The proceeds of the 2020 Senior Bonds were used to (i) refinance a portion of the currently outstanding 2008 Revenue Bonds, Series A, and Series B (Senior Lien) issued under the Trust Agreement, excluding the non-callable convertible capital appreciation bonds, (ii) refinance all of the Authority's currently outstanding Revenue Refunding Bonds, 2008 Series A and 2008 Series B, each guaranteed by the Commonwealth of Puerto Rico, and (iii) pay costs of issuance of the 2020 Senior Bonds. The par amount of the refunded bonds amounts to $1,427.6 million.

On August 25, 2021, the Authority issued 2021 Series A, 2021 Series B, and 2021 Series C senior revenue refunding bonds in a total principal amount of $1,089.8 million and on June 15, 2022, the Authority expects to issue 2022 Series A forward delivery senior revenue refunding bonds in a total principal amount of $565.2 million (together, the "Refunding Bonds") to refinance in the aggregate all of the Authority's 2012 Series A and B senior revenue bonds (the "Refunded Bonds") with an outstanding principal balance of $1,806 million as of that date.

Notes Payable

The Authority finances the cost of design and construction of certain capital improvements projects with notes from the Puerto Rico Water Pollution Control Revolving Fund and the Puerto Rico Safe Drinking Water Treatment Revolving Loan Fund programs. As of June 30, 2019, the Authority's loans outstanding under these programs amounted to approximately $570.3 million, which were considered Commonwealth Guaranteed Indebtedness under the MAT.

On June 30, 2016, the Authority executed a Forbearance Agreement with the Department of Health ("DOH"), the Environmental Quality Board ("EQB") and the Puerto Rico Department of Natural and Environmental Resources as its successor ('PRDNER") and the Puerto Rico Infrastructure Financing Authority ("PRIFA") related to the State Revolving Fund ("SRF") programs. Under the SRF Forbearance Agreement, as further amended in several occasions, the payments due through July 1, 2019, inclusive, under the SRF Loans were deferred and the parties thereto agreed to forbear from exercising, or consenting to the exercise of, any enforcement of rights or remedies available to each under the SRF Loans subject to certain conditions and partial payments.

On July 26, 2019, the Authority and the Puerto Rico Fiscal Agency and Financial Advisory Authority ("AAFAF", by its Spanish acronym) consummated definitive agreements restructuring the Authority's debt obligations under the SRF loans including the outstanding $570 million loans plus $26 million of funds for ongoing projects. The agreement was approved by the Oversight Board pursuant to Section 207 of PROMESA and consolidated all the restructured debt into two SRF loans with a 30-year maturity term at 0% interest rate and $10 million annual principal-only payment from years 1 to 10 and 1% interest rate and $27 million annual debt service thereafter. The restructured SRF loans were designated as Other System Indebtedness in parity with other senior debt under the Authority's MAT.

On February 29, 2012, the Authority entered into a line of credit agreement with the Government Development Bank (GDB). This agreement provided an available maximum amount of $150 million for the purpose of assisting with the Authority's cash flow needs during the transition period after amending and restating the MAT as a result of the issuance of 2012 Revenue Bonds Series A and B. On June 27, 2014, the Authority and GDB executed an Amended and Restated Loan Agreement (the "Loan Agreement") reducing the line of credit to the outstanding balance as of that date of $72.3 million and converting the interim loan to a term loan due and payable on March 31, 2019. The Loan Agreement has an amortization period of fifteen (15) years, which shall be payable in nineteen (19) quarterly payments, commencing on June 30, 2014, plus a final balloon payment (of such amount as may be the balance then outstanding) on the maturity date.

The Loan Agreement was subsequently transferred to the GDB Debt Recovery Authority, a statutory public trust and governmental instrumentality created pursuant to Act 109-2017, as amended ("GDB–DRA") upon consummation of the GDB Qualifying Modification (the "Qualifying Modification") under Title VI of PROMESA on November 29, 2018. At the time of the transfer to the GDB-DRA, the outstanding principal amount under the Loan Agreement was $57.5 million, plus accrued, and unpaid interest. On November 10, 2020, the Authority, AAFAF, GDB-DRA, and the servicer and collateral monitor for GDB-DRA reached an agreement in principle, contingent on Oversight Board approval, to resolve and settle in full all Authority obligations under the Loan Agreement for a one-time Authority payment in the amount of $20.5 million (the "Settlement Agreement"). On November 20, 2020, the Oversight Board approved the settlement and that same day the Authority made the $20.5 million payment in full. Pursuant to the terms of the Settlement Agreement, the Loan Agreement was terminated and the Authority has no further obligation under it.

Detailed information regarding long-term debt activity is included in Note 11 to the financial statements.

Pension Liability

Pension liability as of June 30, 2019 increased by $265.6 million, or 18.8% to $1,672.8 million compared to $1,407.2 million in June 30, 2018, as a result of the implementation of GASB Statement No. 73 due to the PayGo System as required by Act 106-2017.

Summary of Revenues, Expenses, and Changes in Net Position

The following table provides a summary of the Authority's changes in net position for the years ended June 30, 2019 and June 30, 2018, as restated, (in thousands):

	Year Ended June 30		
	2019	2018 As Restated	Change
Operating revenue:			
Revenues from water and sewer, net	$ 1,060,924	$ 941,007	$ 119,917
Insurance proceeds for business interruption	-	143,998	(143,998)
Total operating revenue	1,060,924	1,085,005	(24,081)
Operating expenses:			
Payroll and payroll related	130,295	367,794	(237,499)
Service contract – Superaqueduct	3,762	4,118	(356)
Professional and consulting services	29,689	28,703	986
Chemicals	32,439	29,188	3,251
Materials and replacements	17,070	12,497	4,573
Repairs and maintenance of capital assets	51,805	60,810	(9,005)
Electricity	114,462	104,510	9,952
Insurance	19,173	10,672	8,501
Other operating expenses	109,107	170,853	(61,746)
Operating expenses (excluding depreciation, amortization, and other non-cash adjustments)	507,802	789,145	(281,343)
Depreciation and amortization	274,655	256,758	17,897
Fixed assets hurricane impairment	-	194,197	(194,197)
Transition from GASB Statement No. 68 to GASB Statement No. 73	548,223	-	548,223
Cost of assets disposition	1,513	2,019	(506)
Total opertating expenses	1,332,193	1,242,119	90,074
Operating loss	(271,269)	(157,114)	(114,155)
Nonoperating expenses, net	(225,059)	(247,807)	22,748
Net loss before capital contributions	(496,328)	(404,921)	(91,407)
Capital contributions:	77,890	104,504	(26,614)
Decrease in net position	(418,438)	(300,417)	(118,020)
Net position at beginning of year, ***as restated***	(14,623)	285,794	(300,417)
Net position at end of year	$ (433,061)	$ (14,623)	$ (418,438)

The following table provides a summary of the Authority's changes in net position for the years ended June 30, 2018, as restated, and June 30, 2017 as originally reported, (in thousands):

	Years Ended June 30		
Operating revenue:	2018 (As Restated)	2017 (As Originally Reported)	Change
Revenues from water and sewer, net	$ 941,007	$ 1,032,003	$ (90,996)
Insurance proceeds for Business Interruption	143,998	-	143,998
Total Operating Revenues	1,085,005	1,032,003	53,002
Operating expenses:			
Payroll and payroll related expenses	367,794	352,889	14,905
Service contract – Superaqueduct	4,118	3,852	266
Professional and consulting services	28,703	31,715	(3,012)
Chemicals	29,188	32,023	(2,835)
Materials and replacements	12,497	18,565	(6,068)
Repairs and maintenance of capital assets	60,810	34,433	26,377
Electricity	104,510	126,650	(22,140)
Insurance	10,672	7,890	2,782
Other operating expenses	170,853	85,334	85,519
Operating expenses (excluding depreciation and amortization)	789,145	693,351	95,794
Depreciation and amortization	256,758	285,228	(28,470)
Fixed assets hurricane impairment	194,197	-	194,197
Cost of assets disposition	2,019	15,218	(13,199)
Total operating expenses	1,242,119	993,797	248,322
Operating (loss) income	(157,114)	38,206	(195,320)
Nonoperating expenses, net	(247,807)	(246,802)	(1,005)
Net income (loss) before capital contributions	(404,921)	(208,596)	(196,325)
Capital contributions	104,504	4,016	100,488
Decrease in net position	(300,417)	(204,580)	(95,837)
Net position at beginning of year, as restated	285,794	832,943	(547,149)
Net position, end of year	$ (14,623)	$ 628,363	$ (642,986)

Summary of Revenues, Expenses, and Changes in Net Position - (continued)

Fiscal Years June 30, 2019 and 2018 (as restated)

Net position decreased by $418.4 million, from ($14.6) million in 2018, as restated, to ($433.5) million in fiscal year 2019.

Major fluctuations that resulted in the net position decrease when compared to 2018 operational results:

Decrease in operating revenues	$	(24,081)
Increase in operating expenses		(90,076)
Decrease in non-operating expenses, net		22,750
Decrease in capital contribution		(26,614)
Decrease in net position		(300,417)
Net Change	$	(418,438)

Operating revenues decreased by $24.1 million or 2.2%, when comparing the water and sewer service revenue for fiscal year 2019 with fiscal year 2018, primarily driven by the reduction in insurance proceeds of $143.9 million for business interruption received during fiscal year 2018, as a consequence from the impact of Hurricane María, netted from an increase in water and sewer revenues. During fiscal year 2019, water and sewer service revenues increased by $119.9 million, or 12%, as fiscal year 2018 revenues were affected by service interruptions caused by the Hurricane María.

Operating expenses increased by $90.1 million or 7.2% primarily due to the net effect of the following:

- Increase of $548.2 million as a result of the impact in the transition from GASB Statement No. 68 to GASB Statement No. 73 to record the adjusted pension liability.
- Increase of $17.9 million in depreciation and amortization expense.
- Increase of $9.9 million in electricity expense, as consumption during fiscal year was affected by the electric service interruptions as a result of the 2017 Hurricanes impact in the Puerto Rico electric system.
- Increase of $8.5 million in insurance costs, after the 2017 Hurricanes impact on the insurance premium costs.
- Increase of $4.6 million in materials and replacements costs.
- Increase of $3.3 million in professional and consulting expenses.
- Decrease of $237.5 million in payroll and payroll-related expenses, as a result of the transition from GASB Statement No. 68 to GASB Statement No. 73, which resulted in a reduction of pension expense of $162 million when compared to fiscal year 2018. In addition, payroll and payroll related cost was also reduced by $48.2 million as a result of the adjustment of pre-retirement benefits under Act 211 in accordance with GASB Statement No. 47.
- Decrease of $194.2 million in fixed assets hurricane impairment, since after the fiscal year 2018 asset impairment recognized as a result of the 2017 Hurricanes. No impairment was recorded during fiscal year 2019.
- Decrease of $61.7 million in other operating expense, as fiscal year 2018 results were affected by the 2017 Hurricanes impact.
- Decrease of $9.0 million in repairs and maintenance of capital assets expenses, as fiscal year 2018 results were affected by the 2017 Hurricanes impact.

Non-operating expenses decreased by $22.8 million when compared to fiscal year 2018, mainly as a result of an increase in interest and other income by $18.9 million and an decrease of $3.8 million in interest expense.

Capital contributions decreased by $26.6 million as a result of lower proceeds of funds obligated by FEMA during fiscal year 2019 to reimburse the Authority's expenses incurred in the system recovery process after the 2017 Hurricanes impact.

Fiscal Years June 30, 2018 (as restated) and 2017 (as originally reported)

Net position decreased by $300.4 million or 105%, from $285.8 million (as restated) in 2017 to $(14.6) million in fiscal year 2018. The information for fiscal year 2017 presented in the summary tables related to the Authority's net position and changes in net position (included in pages 8 and 16, respectively) is presented as originally reported and therefore the change in net position presents an unadjusted decrease of $642 million.

Major fluctuations that resulted in a decrease in net position when compared to 2017 operational results are broken down as follows (in thousands):

Increase in operating revenues	$	53,002
Increase in operating expenses		(248,319)
Increase in nonoperating expenses, net		(1,008)
Increase in capital contributions		100,488
Decrease in net position		(204,580)
Net change	$	(300,417)

Operating revenues increased by $53 million or 5.1%. During fiscal year 2018, the Authority recognized insurance proceeds for business interruption of $144.0 million from the Hurricane Maria revenue loss claim. When comparing the water and sewer service revenue for fiscal year 2018 versus prior year, revenues decreased by $91.0 million, even after an implemented rate adjustment, mainly as result of the services interruption caused by the Hurricanes.

Operating expenses increased by $248.3 million or 25% primarily due to the net effect of the following:

- Increase of $194.2 million in capital assets hurricane impairment.
- Increase of $85.5 million in other operating expense.
- Increase of $26.4 million in repairs and maintenance of capital assets expenses.
- Increase of $14.9 million in payroll and payroll-related expenses.
- Decrease of $22.1 million in electricity expense.
- Decrease of $28.5 million in depreciation and amortization expense.
- Decrease of $13.2 million in cost of assets disposition.
- Decrease of $6.1 million in materials and replacements.
- Decrease of $3.0 million in professional and consulting expenses.
- Decrease of $2.8 million in chemicals expense.

Non-operating expenses increased by $1 million or 0.4% when compared to fiscal year 2017. The increase is the result of a reduction in other income of $2.6 million, and a decrease of interest expense, the amortization of bond premium and discount, and deferred refunding losses of $0.9 million, netted by an increase in interest income of $0.6 million. Capital contributions increased by $100.5 million primarily as a result of an increase of $97.5 million in funds obligated by FEMA to reimburse the Authority a portion of the costs incurred in the system recovery process after the Hurricanes impact.

Currently Known Facts

The following is a summary description of currently known facts, decisions, and conditions that have had, or are expected to have, an impact in the Authority's financial position and results of operations. For additional information and further detail, refer to Note 22.

USDA and SRF Debt Modification

On July 26, 2019, the Authority and AAFAF consummated definitive agreements (the "Agreements") restructuring the Authority's debt obligations under the SRF Program and the USDA Rural Development, Rural Utilities Service program ("RD/RUS" and together with the EPA, the "Federal Parties") totaling almost $1 billion (the "Federal Debt"). The restructured Federal Debt was designated as Other System Indebtedness in parity with other senior debt under the Authority's MAT and is not guaranteed by the Commonwealth and consolidated of all the restructured debt into two SRF loans and one RD loan with extended maturities and/or lower interest rates as follows:

- RD loans: 40-year term at 2% interest rate, with $10 million annual debt service from years 1 to 10 and $17 million annual debt service thereafter
- SRF loans: 30-year term at 0% interest rate and $10 million annual principal-only payment from years 1 to 10 and 1% interest rate and $27 million annual debt service thereafter.

2019-2020 Seismic Activity

On January 7, 2020, Puerto Rico was struck by a 6.4 magnitude earthquake causing significant damage to infrastructure in the southwestern portion of the island, an island-wide power outage and water shortages..

According to a January 29, 2020 report published by the United States Geological Survey, Puerto Rico is at risk of many potentially catastrophic earthquakes in the near term, a prediction borne out on May 2, 2020, when a 5.4 magnitude earthquake struck Puerto Rico's southwestern coast.

The Authority estimates that its Systems in the affected area sustained damages of approximately $6.7 million, much of which is expected to be covered by insurance or be eligible for federal funding to offset the cost of the Authority of repairs.

COVID-19

On March 11, 2020, the World Health Organization declared the Coronavirus disease caused by a novel coronavirus ("COVID-19") a global pandemic. As a result of the health threat and to contain the COVID-19 spread across the island, the Governor issued executive order EO 2020-020, on March 12, 2020, declaring a state of emergency in Puerto Rico to concentrate all efforts and implement necessary measures to safeguard the health, well-being and public safety of the residents of Puerto Rico. The Governor has issued several extensions on the March order with various modifications to Puerto Rico's social distancing measures. The public emergency remains in effect as of the date of the issuance of these financial statements. On April 9, 2020, Act 39-2020 became effective, which has prevented the Authority from disconnecting residential customer's water services due to non-payment during the public emergency and for two months after it is ended.

The COVID-19 pandemic, associated mitigation policies, and the resulting economic impact have presented certain challenges for the Authority, including but not limited to reductions in collections, increase in operational expenses, shortage of supplies and interruption to contracted services, workforce issues and delayed in implementation of CIP.

Environmental Compliance

Although the Authority is committed to bringing the Systems into material compliance with applicable law, the Authority will not be able to comply fully with all the requirements of the 2015 EPA Consent Decree and 2006 Drinking Water Settlement Agreement due to the impact of the 2017 Hurricanes, the 2020 Earthquakes and the COVID-19 pandemic on project execution timelines. The Authority invoked the force majeure clause under such agreements and is currently negotiating a proposed amendment to the 2015 EPA Consent Decree to revise the schedule for completion of required projects that have been delayed due to these events and to incorporate deadlines or time frames that the Authority anticipates it would be able to meet. In addition, as noted above, the Authority expects to negotiate with PRDOH an amendment to the 2006 Drinking Water Settlement Agreement to provide for revised project completion time frames consistent with agreements reached with EPA under the 2015 EPA Consent Decree and the prioritization system established under that 2015 EPA Consent Decree. In the meantime, the Authority expects that it will continue to pay stipulated penalties and to make additional capital expenditures (some not included in the CIP) in the future

2020 Drought

In 2020, the Authority faced a new dry season where 50% of the Island went under moderate to severe drought conditions. A water rationing plan was implemented affecting around 140,000 clients served by the Carraízo system from July 2 to July 27, 2020. Additionally, around 23,000 clients served by other water systems were also under water. To minimize the impact of the drought and water rationing on its service, the Authority had taken measures to manage pressures in the system, reduce water production and activate wells to protect and extend water sources availability. Such actions helped the Authority to reduce the impact to the service, which combined with system interconnections allowed the Authority to avoid more drastic water rationing measures in 2020 and avoid water rationing in 2021.

2021 Fiscal Plan

On May 27, 2021, the Oversight Board approved its latest 6-year fiscal plan for the Authority (the "PRASA Fiscal Plan") pursuant to PROMESA and the requirements imposed by the Oversight Board. The PRASA Fiscal Plan includes certain initiatives, such as, among others, rate increases, a Public Private Partnership project for improving commercial services, increases in government account collections, reductions in physical water losses, and new federal funding. For more detail on PRASA's financial projections and measures under implementation or to be implemented as required by the Oversight Board please refer to 2021 Fiscal Plan for the Authority published in the Oversight Board webpage.

Rate Adjustments

In 2017, the Oversight Board required the Authority to implement moderate, but consistent multi-year rate adjustments to ensure its costs are fully covered by service revenues. On August 1, 2017, the Authority's Governing Board approved, a moderate rate adjustment schedule for five years between fiscal year 2018 and fiscal year 2022 through Resolution 3042, of 2.5%, 2.8%, 3.5% and 4.5% for residential, commercial, industrial and government clients, respectively.

The scheduled rate adjustments for fiscal years 2018 through 2022 have been implemented as planned, with the fifth scheduled rate adjustment taking effect on July 1, 2021.

After the July 1, 2021 for rate increases over a cumulative effect of 25% since FY2013, the Authority will be required to follow the Act No. 21 process. The Authority is currently reviewing its rate structure with the objective of simplifying it, incorporating feedback and recommendations from a third-party expert in utilities rates, and implementing the new rate structure starting in fiscal year 2023.

2020 Clean Water State Revolving Funds Loan

After the July 2019 successful debt restructuring of PRASA's outstanding loans under the Puerto Rico SRF Program, with the agreement of and in collaboration with the EPA, PRASA regained access to funds from the SRF Program. On August 18, 2020, PRASA entered into a loan agreement with the PRDNER and PRIFA for loans totaling up to $163 million to allow for funding of 28 wastewater capital improvement projects.

The executed loan agreement provides for a 30-year amortization after completion of the relevant projects, with a 1% interest rate. The loans were designated as Senior Indebtedness under PRASA's Master Trust Agreement.

Government Development Bank (GDB) – Debt Restructuring Act

On August 24, 2017, the Governor signed into law Act No. 109 – "GDB Debt Restructuring Act", which provides for the determination of liabilities between any government entity and the GDB, by automatically applying the outstanding balance of any deposit of such entity against the outstanding balance of any loan of such entity with GDB, in a manner consistent with the Qualifying Modification - as described in Title VI of PROMESA. PRASA's Note with GDB (refer to Note 13 for more details) was transferred to the GDB DRA upon consummation of the Qualifying Modification on November 29, 2018 (the "GDB-DRA Loan Agreement"). The Authority's obligation under the GDB-DRA Loan Agreement was subordinate in all respects to its outstanding Trust Agreement obligations. At the time of the transfer to GDB-DRA, the outstanding principal amount under the GDB-DRA Loan Agreement was $57.5 million, plus accrued and unpaid interest. On November 10, 2020, the Authority, AAFAF, GDB-DRA and the collateral monitor for GDB-DRA reached an agreement in principle, contingent on Oversight Board approval, to resolve and settle in full all Authority obligations under the GDB-DRA Loan Agreement by a one-time Authority payment in the amount of $20.5 million. On November 20, 2020, the Oversight Board approved the settlement, the Authority made that payment in full, the GDB-DRA Loan Agreement was terminated, and the Authority has no further obligation under it.

2020 Debt Refunding

On December 17, 2020, the Authority issued its 2020 Series A and Series B Revenue Refunding Bonds (the "2020 Senior Bonds") in the amount of $1,351.3 million and $18.8 million, respectively, for the purpose of refunding a portion of the outstanding bonds of the Authority. The proceeds of the 2020 Senior Bonds were used to (i) refinance a portion of the currently outstanding 2008 Revenue Bonds, Series A, and Series B (Senior Lien) issued under the Trust Agreement, excluding the non-callable convertible capital appreciation, (ii) refinance all of the Authority's currently outstanding Revenue Refunding Bonds, 2008 Series A and 2008 Series B, each guaranteed by the Commonwealth of Puerto Rico, and (iii) pay costs of issuance of the 2020 Senior Bonds. The par amount of the refunded bonds amounted to $1,427.6 million.

The defeasance of the refunded bonds resulted in a reduction in the Authority's total debt service payments over the next 27 years of approximately $348.2 million and resulted in an economic gain (difference between the present values of the old and new debt service payments) of approximately $213.3 million.

Disaster Recovery Funds

On January 5, 2021, the President of the United States announced that FEMA would award federal grant funds to help rebuild Puerto Rico's water and wastewater treatment plants, pumping stations, dams, and reservoirs affected by Hurricane María. On January 8, 2021, the funds were obligated through an agreement (the "2021 FEMA Funding Agreement") by which FEMA agreed to pay $3.66 billion to the Authority for recovery and resiliency capital projects related to damage suffered by the Authority during Hurricane María. The amount represents the federal government's 90% funding share of the $4.07 billion fixed cost estimate for repairing such damage to the Authority's facilities. The Authority is required to meet a 10% cost share ("match") requirement for its FEMA-funded permanent work projects under the 2021 FEMA Funding Agreement. The Authority plans to meet its cost-share portion with federal Housing and Urban Development ("HUD") Community

Development Block Grant – Disaster Recovery Flexible Match program ("CDBG-DR Program") funds, as they become available. On September 2, 2021 the Department of Housing of Puerto Rico and the Authority entered into a sub-award agreement for $200 million under the CDBG-DR Non-Federal Match Program to fund the state match of the FEMA award.

2021 and 2022 Debt Refunding

On August 25, 2021, the Authority issued 2021 Series A, 2021 Series B and 2021 Series C senior revenue refunding bonds in a total principal amount of $1,089.8 million and on June 15, 2022, the Authority expects to issue 2022 Series A forward delivery senior revenue refunding bonds in a total principal amount of $565.2 million (together, the "Refunding Bonds") to refinance in the aggregate all of the Authority's 2012 Series A and B senior revenue bonds (the "Refunded Bonds") with an outstanding principal balance of $1,806 million.

The 2021 and 2022 Debt Refunding will result in (a) a reduction of the Authority's total debt service payments over the next 26 years of approximately $569.7 million and (b) an economic gain (the difference between the present values of the old and new debt service payments) of approximately $385 million.

2021 DWSRF Financial Assistance Agreement

On August 30, 2021, PRASA entered into a Financial Assistance Agreement with the PRDOH and the PRIFA under the DWSRF for $46 million. From the total assistance, $24 million are under subsidized loans (0% interest and principal forgiveness) and $22 million of a 30-year, 1% loan. The agreement will allow for funding of five water improvements capital projects. The loan portion of the agreement is designated as Senior Indebtedness under PRASA's Master Trust Agreement.

Next Year's Budget and Credits Ratings

On May 14, 2021, the Authority submitted its budget version for fiscal year 2022 to the Oversight Board as requested by PROMESA. On June 30, 2021, the Oversight Board certified its version of the fiscal year 2022 budget for the Authority which is available at https://oversightboard.pr.gov. The certified budget for fiscal year 2022 includes $515.8 million for the Authority's Capital Improvement Program, including recovery and reconstruction projects after the 2017 Hurricanes, to be funded by federal funds.

As of the date of the issuance of these financial statements, the Authority's 2008 and 2012 Senior Revenue Bonds were rated "CCC" by Fitch Ratings. In August 2018, Standard and Poor's withdrew its credit ratings for the Authority's bonds. On July 20, 2021, Moody's withdrew for unspecified business reasons its "Ca (Negative)" rating on the Senior Bonds of the Authority.

Contacting the Authority's Financial Management

This financial report is designed to provide the Authority's customers, creditors, and other interested persons with a general overview of its finances and to demonstrate the Authority's accountability for the funds it receives. If you have questions about this report, or need additional financial information, contact the Director of Finance at 604 Barbosa Avenue, Suite 406, San Juan, Puerto Rico 00917 or (787) 620-3791.

Puerto Rico Aqueduct and Sewer Authority
(A Component Unit of the Commonwealth of Puerto Rico)

Balance Sheets
June 30, 2019 and 2018

(In thousands)

Assets

	2019	2018 *As restated*
Current assets:		
Cash and cash equivalents	$ 377,875	$ 233,626
Accounts receivable, net	183,335	239,734
Receivables from insurance companies	-	186,000
Receivables from federal agencies	35,020	26,563
Receivables from Commonwealth	1,007	-
Materials and supplies inventory, net	30,820	29,421
Prepayments and other current assets	13,115	13,695
Restricted cash for debt service	251,678	216,451
Total current assets	892,850	945,490
Restricted assets--		
Restricted cash, cash equivalents and other deposits	187,279	148,964
Capital assets:		
Capital assets being depreciated	10,691,772	10,662,414
Accumulated depreciation and amortization	(5,173,316)	(4,900,596)
	5,518,456	5,761,818
Land and other nondepreciable assets	74,956	74,956
Construction in progress	351,122	323,418
Total capital assets, net	5,944,534	6,160,192
Deferred outflows of resources:		
Loss on debt refunding	13,403	18,349
Pension related	93,449	302,705
Other postemployment benefits related	16,179	6,457
Total deferred outflows of resources	123,031	327,511
Total assets and deferred outflows of resources	$ 7,147,694	$ 7,582,157

Puerto Rico Aqueduct and Sewer Authority
(A Component Unit of the Commonwealth of Puerto Rico)

Balance Sheets
June 30, 2019 and 2018

(In thousands)

Liabilities and Net Position

	2019	2018 *As restated*
Current liabilities:		
Bonds payable	**$ 59,695**	$ 58,000
Notes payable	**10,833**	10,000
Pension liability	**91,017**	92,674
Accounts payable	**150,596**	250,867
Accrued liabilities	**144,522**	197,528
Accrued interest	**273,154**	238,380
Unearned revenue	**23,330**	29,691
Customers' deposits	**8,046**	7,771
Compensated absences, postemployment and other benefits	**21,498**	21,810
Total current liabilities	**782,691**	906,721
Noncurrent liabilities:		
Bonds payable	**4,227,137**	4,283,276
Notes payable	**617,185**	635,825
Pension liability	**1,581,862**	1,314,612
Customers' deposits	**83,090**	81,830
Compensated absences, postemployment and other benefits	**174,172**	190,777
Total noncurrent liabilities	**6,683,446**	6,506,320
Deferred inflows of resources:		
Pension related	**105,454**	176,354
Other postemployment benefit related	**9,164**	7,385
Total deferred inflows of resources:	**114,618**	183,739
Total liabilities and deferred inflows of resources	**7,580,755**	7,596,780
Net Position:		
Net investment in capital assets	**1,324,192**	1,415,689
Restricted for environmental compliance, capital activity and other	**144,449**	122,818
Unrestricted deficit	**(1,901,702)**	(1,553,130)
Total net position	**(433,061)**	(14,623)
Total liabilities and net position	**$ 7,147,694**	$ 7,582,157

Puerto Rico Aqueduct and Sewer Authority
(A Component Unit of the Commonwealth of Puerto Rico)

Statements of Revenues, Expenses and Changes in Net Position
Years Ended June 30, 2019 and 2018

(In thousands)

	2019	2018
		As restated
Operating revenues:		
Water	$ 717,131	$ 652,532
Sewer	377,552	353,217
Insurance proceed for business interruption	-	143,998
Bad debt expense	(33,759)	(64,742)
Total net operating revenues	1,060,924	1,085,005
Operating expenses:		
Payroll and payroll related	130,295	367,794
Electricity	114,462	104,510
Repairs and maintenance of capital assets	51,805	60,810
Professional and consulting services	29,689	28,703
Chemicals	32,439	29,188
Materials and replacements	17,070	12,497
Insurance	19,173	10,672
Service contract – Superaqueduct	3,762	4,118
Other operating expenses	109,107	170,853
Operating expenses (excluding depreciation and amortization and other non-cash adjustments)	507,802	789,145
Depreciation and amortization	274,655	256,758
Impairment loss on capital assets	-	194,197
Cost of assets disposition	1,513	2,019
Transition from GASB Statement No. 68 to GASB Statement No. 73	548,223	-
Total operating expenses	1,332,193	1,242,119
Operating loss	(271,269)	(157,114)
Nonoperating revenues (expenses):		
Interest expense, net of amortization of debt issuance cost, bond premium and discount, and deferred refunding loss	(249,040)	(252,875)
Interest income	9,473	2,958
Other income, net	14,508	2,110
Total nonoperating expenses, net	(225,059)	(247,807)
Loss before capital contributions	(496,328)	(404,921)
Capital contributions--		
Federal grants and other contributions	77,890	104,504
Change in net position	(418,438)	(300,417)
Net position at beginning of year, as restated	(14,623)	285,794
Net position at end of year	$ (433,061)	$ (14,623)

The accompanying notes are an integral part of these statements.

Puerto Rico Aqueduct and Sewer Authority
(A Component Unit of the Commonwealth of Puerto Rico)

Statements of Cash Flows
Years Ended June 30, 2019 and 2018

(In thousands)

	2019	2018
Cash flows from operating activities:		***As restated***
Cash received from customers	**$ 1,111,415**	$ 913,980
Cash received from insurance companies	**186,000**	93,000
Cash paid to suppliers	**(484,003)**	(402,219)
Cash paid to employees	**(353,445)**	(212,594)
Net cash provided by operating activities	**459,967**	392,167
Cash flows from non-capital financing activities:		
Payments of notes	**(7,807)**	-
Net cash from other income	**14,508**	2,110
Net cash provided by non-capital financing activities	**6,701**	2,110
Cash flows from capital and related financing activities:		
Additions to utility plant and other capital assets	**(63,560)**	(54,142)
Proceeds from capital contributions	**78,972**	102,469
Payments of bonds and notes	**(61,763)**	(56,832)
Interest paid on bonds, notes and lines of credit	**(211,998)**	(196,365)
Net cash used in capital and related financing activities	**(258,349)**	(204,870)
Cash flows from investing activities --		
Interest received on investments	**9,472**	2,958
Net change in cash and cash equivalents	**217,791**	192,365
Cash and cash equivalents, beginning of year	**599,041**	406,676
Cash and cash equivalents, end of year	**$ 816,832**	$ 599,041
For purposes of the statements of cash flows, cash and cash equivalents include:		
Unrestricted	**$ 377,875**	$ 233,626
Restricted	**438,957**	365,415
	$ 816,832	$ 599,041

The accompanying notes are an integral part of these statements.

Puerto Rico Aqueduct and Sewer Authority
(A Component Unit of the Commonwealth of Puerto Rico)

Statements of Cash Flows
Years Ended June 30, 2019 and 2018

(In thousands)

	2019	2018
Reconciliation of operating loss to net cash provided by operating activities:		*As restated*
Operating loss	**$ (271,269)**	$ (157,111)
Adjustments to reconcile operating income (loss) to net cash provided by operating activities:		
Depreciation and amortization	**274,655**	256,758
Effect of transition from GASB Statement No. 68 to GASB Statement No. 73	**548,223**	-
Fixed assets hurricane impairment	**-**	329,199
Cost of assets disposition	**1,513**	2,019
Bad debt expense	**33,759**	64,742
Change in assets and liabilities:		
Accounts receivable	**21,558**	(102,566)
Receivables from insurance companies	**186,000**	(186,000)
Receivables from federal agencies	**(8,457)**	(26,284)
Materials and supplies inventory	**(1,400)**	(1,578)
Prepayments and other current assets	**580**	(9,043)
Accounts payable	**(97,219)**	73,021
Unearned revenue	**(6,361)**	9,568
Accrued compensated absences, post employment and other benefits	**(12,771)**	54,224
Accrued liabilities	**(53,009)**	(22,400)
Customers' deposits	**1,535**	1,229
Pension liability	**(157,370)**	106,389
Total adjustments	**731,236**	549,278
Net cash provided by operating activities	**$ 459,967**	$ 392,167

(1) Reporting Entity and Summary of Significant Accounting Policies

The Puerto Rico Aqueduct and Sewer Authority (“PRASA” or “the Authority”) is a component unit of the Commonwealth of Puerto Rico (“the Commonwealth”). The Authority was created in 1945 under Act No. 40 (“the Act”), as amended, and reenacted, for the purpose of owning, operating, and developing all of the public aqueduct and sewer systems in Puerto Rico (the “System”). The Authority provides water and wastewater services to the Commonwealth, businesses, and residents of Puerto Rico. As a public corporation and an instrumentality of the Commonwealth, the Authority is exempt from the payment of income, property and municipal taxes. Under the terms of the Act, the Authority has broad powers, including, among others, to borrow money and issue revenue bonds for any of its corporate purposes. The Authority receives, in addition to the funds derived from operating its water and wastewater systems, grants from various agencies of the federal government of the United States of America and donations in kind or in cash from developers and various governmental agencies and instrumentalities of the Commonwealth.

Basis of Presentation – Blended Component Unit

The financial statements of the Authority as of June 30, 2019 and 2018, include the financial position and operations of PRASA Holdings, which is a limited liability company incorporated under the laws of the State of Delaware on March 6, 2014. PRASA Holdings, LLC was created to engage in lawful activities, for which limited liability companies may be organized under the Delaware Limited Company Act, subject to the limitations contained in PRASA’s enabling act.

As part of the Authority’s plan to collect additional revenues to supplement the Authority’s Revenues, pursuant to Act No. 228, enacted on November 1, 2011, the Authority created PRASA Holdings, LLC, pursuant to Resolution No. 2826, a public new corporate entity, as a holding company for future investments. PRASA Holdings, LLC is authorized to do business in Puerto Rico. It is the parent company of Zumfiber, LLC, a limited liability company organized for investment purposes, which is also registered in the State of Delaware and is to engage in the development and operation of open access fiber optic infrastructure mainly through the water and wastewater system pipes in the San Juan Metropolitan area neighborhoods of Old San Juan, Condado and Isla Verde.

During the fiscal years ended June 30, 2019 and 2018, PRASA Holdings, LLC did not have operational activities. However, it has total assets and net position of $0.5 million as of June 30, 2019 and 2018.

Summary of Significant Accounting Policies

The accounting and reporting policies of the Authority conform to the accounting rules prescribed by the Governmental Accounting Standards Board (“GASB”). The Authority follows GASB pronouncements under the hierarchy established by GASB Statement No. 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments,* in the preparation of its financial statements. The Authority functions as an enterprise fund and maintains its accounting records on the accrual basis of accounting in conformity with U.S. generally accepted accounting principles. The following describes the most significant accounting policies followed by the Authority.

Measurement Focus and Basis of Accounting

The Authority's operations are accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting. Under this method, all assets and liabilities associated with operations are included on the balance sheets, and revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

Revenues are recorded when utility services are provided to customers. All customers are billed on a monthly basis. Revenues are presented net of estimated allowances for uncollectible accounts. The Authority recognizes revenue on unbilled utility services based on estimated consumption.

The Authority distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are charges to customers for water and wastewater related sales and services. Operating expenses of the Authority include mainly the cost for providing water and wastewater services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Cash and Cash Equivalents

Cash equivalents include all highly liquid instruments with maturities of three months or less at the time of acquisition. If such instruments are included in restricted assets, they are considered cash equivalents for purposes of the statements of cash flows.

Funds set aside for construction, debt service payments or other specific purposes are classified as restricted assets since their use is limited for these purposes by the applicable agreements.

When both restricted and unrestricted resources are available for a specific use, it is the Authority's policy to use restricted resources first, then unrestricted resources as they are needed.

Receivables

Receivables are stated net of estimated allowances for uncollectible accounts, which are determined based upon past collection experience and current economic conditions, among other factors.

Materials and Supplies Inventory

Materials and supplies inventory are stated at average cost, not to exceed market. Inventory is presented net of a reserve for obsolescence for approximately $0.46 million as of June 30, 2019 and $1.5 million as of June 30, 2018.

Unamortized Premiums, Discounts and Deferred Refunding Losses

Debt premiums and discounts are deferred and amortized to expense over the life of the related debt using the effective interest method.

The excess of reacquisition costs over the carrying value of refunded long-term debt is deferred and amortized to expense using the effective interest method over the remaining term of the original debt, or the term of the new debt, whichever is shorter.

Bonds payable are reported net of applicable bond premiums or discounts. The debt issuance costs are classified as nonoperating expenses and the deferred loss from debt refunding as deferred outflows of resources on the accompanying balance sheets.

Capital Assets

The Authority defines capital assets as tangible and intangible assets used in the Authority's operations with a useful life longer than three years, and with an individual cost of over $1,000 for technology hardware and software and over $2,000 for all other capital assets.

Utility plant and other capital assets are carried at historical cost or estimated historical cost, which includes capitalized labor, materials, administrative costs, and interest on debt financed construction. The Authority did not recognize capitalized interest for the years ended June 30, 2019 and June 30, 2018 as most of its Capital Improvement Projects (CIP) were financed by the Authority's operating revenues.

Recurring maintenance and repair costs are charged to expense, whereas major repairs, improvements, and replacements are capitalized. When capital assets are disposed of, the cost and applicable accumulated depreciation are removed from the respective accounts, and the resulting gain or loss is recorded as operating expense.

Depreciation and amortization expense are calculated using the straight-line method over the following useful lives:

Description	Useful Life
Wells and tanks	Fifty (50 years
Vehicles, computer and software, tools and laboratory equipment	Five (5) years
Furnitures and fixtures, water meters, construction equipment	Ten (10) years
Water and sewer parts and pump station	Thirty (30) years
Burried infranstructure	Range from fifty (50) to Seventy (70) years
Dams	Seventy (70) years
Buildings	Forty (40) years

During fiscal year ended June 30, 2019, the Authority corrected the accumulated depreciation for some assets as further described in the Note 19.

Governments are required to evaluate prominent events or changes in circumstances affecting capital assets to determine whether impairment of a capital asset has occurred. Such events or changes in circumstances that may be indicative of impairment include evidence of physical damage, enactment or approval of laws or regulations or other changes in environmental factors, technological changes or evidence of obsolescence, changes in the manner or duration of use of a capital asset, and construction stoppage among others.

The Authority performed an assessment of impairment on capital assets as of June 30, 2019 and 2018 under the provisions of GASB No. 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*, which establishes that, generally, an asset is considered impaired when its services utility has declined significantly and unexpectedly. This statement also clarifies and establishes accounting requirements for insurance recoveries. For the year ended June 30, 2018, after the damages caused by hurricanes Irma and Maria during 2017, the Authority performed an evaluation of the hurricanes impact in its capital assets and recognized an asset impairment of $329 million. Insurance proceeds amounting to $135 million, net of adjuster's broker fee, were recovered from the impairment. No assets impairment was recorded during the year ended June 30, 2019.

Unearned Revenue

Unearned revenue arises from water and sewer services paid in advance by government, residential, commercial or industrial.

Deferred Outflows and Inflows of Resources

In addition to assets, the Balance Sheets report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources,* represents consumption of net position applicable to a future period(s) and so will *not* be recognized as an outflow of resources (expense) until then. Similarly, the Authority reports deferred inflows of resources in the Balance Sheets in a separate section following liabilities. This separate financial statement element, *deferred inflows of resources,* represents an acquisition of net position and resources applicable to a future period(s) and so will *not* be recognized as an inflow of resources (revenue) until that time. Deferred outflows and inflows of resources mainly affect the unrestricted (deficit) net position.

The Authority has the following deferred outflow/inflow of resources:

<u>Deferred outflows</u>

- Unamortized loss from debt refunding. See Note 12.
- Difference between expected and actual experience, changes in proportions, assumptions, and pension and other post employment benefits payments subsequent to the measurement date of the applicable benefit. See Notes 14 and 15.

<u>Deferred inflows</u>

- Difference between pension liability actual and expected experience. See Note 14.
- Difference between projected and actual investment earnings on pension plan investments (for 2018 only). See Note 14.
- Changes in proportions, assumptions about future economic and demographic factors related to other post-employment benefits obligation. See Note 15.

Accounting for Compensated Absences

Employees earn vacation and sick leave based on a prescribed formula. The amount of vacation and sick leave earned and not used by the Authority's employees is accrued as a liability, including payroll related costs, as the benefits are earned by the employees and if the employees' rights to receive compensation are attributable to services already rendered and it is probable that the Authority will compensate the employees for the benefits through paid time off or some other means, such as cash payments at termination or retirement. The Authority's employees are entitled to receive compensation for unused vacation days up to 60 days, based on current legislation. Accrued unused sick days does not result in compensation to employees.

The cost of compensated absences expected to be paid in the next twelve (12) months is classified as a current liability while amounts expected to be paid after twelve (12) months are classified as noncurrent liabilities.

Termination Benefits

The Authority accounts for termination benefits in accordance with GASB Statement No. 47 *(Accounting for Termination Benefits)*. Pursuant to the provisions of GASB Statement No. 47, in financial statements prepared on accrual basis of accounting, employers should recognize a liability and expense for voluntary termination benefits (for example, early retirement incentives) when the offer is accepted and the amount can be estimated. A liability and expense for involuntary termination benefits (for example, severance benefits) should be recognized in the financial statements when: (i) a plan for termination has been approved by those with the authority to commit the government to the plan, (ii) the plan has been communicated to the employees, and (iii) the amount can be estimated.

Accounting for Pension Costs

As further disclosed in Note 14, effective July 1, 2017, a new "pay-as-you-go" (PayGo) system was enacted into law by Act No. 106 of 2017 (Act 106-2017), significantly reforming the defined benefit plan (the Plan) of the Employees' Retirement System of the Government of the Commonwealth of Puerto Rico (ERS). Under the PayGo system, employers' contributions and other contributions ordered by special laws were all eliminated and substantially all of assets of the Plan were liquidated and its proceeds transferred to the Commonwealth's General Fund for payment of pension benefits; therefore, since the enactment of Act 106-2017, the Commonwealth's General Fund is making direct payments to the pensioners and is then reimbursed for those payments by the participating employers.

As a result of the implementation of the PayGo system, the Plan did no longer meet the criteria of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions-an amendment of GASB Statement No. 27* to be considered a plan that is administered through a trust or equivalent arrangement and; therefore, was required to apply the guidance of GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets that are not within the Scope of GASB Statement No 68, an amendment of Certain Provisions of GASB Statements No. 67 and 68 .* GASB Statement No. 73 maintains the "accrual basis" model under GASB Statement No. 68, where the pension liability is actuarially determined. GASB Statement No. 73 requires a liability for pension obligations, known as the Total Pension Liability, to be recognized on the balance sheets of participating employers. Changes in Total Pension Liability are immediately recognized as pension expenses. As Act 106-2017 eliminated all contribution requirements for the Plan and converted it into a PayGo system, the corresponding actuarial calculation of the total pension liability and related accounts changed to one based on benefit payments rather than contributions. As a result, the Authority recognized a total pension liability (replacing the previously recognized Net Pension Liability and related accounts under the previous method) and pension expenses, accordingly. As the change to the PayGo system was caused by the impact of legislation not under the Authority's management control and the actuarial calculation changed from one based on contributions to a new one based on benefit payments, the impact on all corresponding pension related accounts was accounted for prospectively. A total of $548.2 million of pension expense related to the adoption of GASB Statement No. 73, is presented within operating expenses in the accompanying Statement of Revenues, Expenses and Changes in Net Position during the year ended June 30, 2019. The Authority's share of the total pension liability increased to 6.831% and its share of the total pension liability was $1.7 billion as of June 30, 2019. The Authority's proportion of the net pension liability was 4.11269% representing a share of $1.4 billion as of June 30, 2018. Disclosures required under GASB Statement No. 73 can be found in Note 14.

The Central Government and its component units are considered to be one employer, and are classified for financial reporting purposes as a single-employer defined benefit pension plan. Other employers also participate in the Plan. Because certain employers that are component units of the Commonwealth, such as the Authority, prepare individual financial statements, a proportionate share of pension related amounts is determined for these employers. GASB Statement No. 73 requires that such proportionate share should be consistent with the manner in which amounts that are paid as benefits come due are determined. The proportionate share as of each measurement date is based on the ratio of each agency and component unit's actual benefit payments to the total actual benefit payments paid during the year ending on the measurement date.

ERS elected to use July 1 of each fiscal year as the measurement date for financial information. Based on this election, the June 30, 2018 actuarial measurement data was used for the pension benefits financial reporting recognition as of and for the fiscal year ended June 30, 2019.

Accounting for Postemployment Benefits Costs

In accordance with the provisions of the GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, the Authority is required to quantify and disclose its obligations to pay non-pension post-employment benefits to current and future retirees. GASB Statement No. 75 employs an "accrual basis" model, where the total post employment benefit obligation (actuarially determined) is compared to the benefit plan net position, if any, and the difference represents the Net Other Postemployment Benefit (OPEB) Liability (Total OPEB Liability for unfunded plans).

The Authority provides non-pension, post-employment benefits under a Healthcare Benefits Plan to qualifying retirees that consist of a fixed maximum monthly payment of $125 to cover medical expenses for retired employees meeting the service eligibility requirements. Based on this Plan's features, it is treated as a single-employer, defined benefit healthcare plan. These benefits are funded by the Authority on a PayGo, which means that there is no reserve or pool of assets against the benefit expenses that the Authority may incur in future years. Based on the actuarial valuation report, as of June 30, 2019, the Authority's actuarial accrued liability with respect to these benefits was $75.4 million, and the funding ratio was 0%. For fiscal years 2019 and 2018 the Authority paid $3.1 million and $3.0 million, respectively for these non-pension post-employment benefits for its eligible retirees.

The Authority's retired employees also participate in the ERS sponsored Medical Insurance Plan Contribution (ERS MIPC), providing a benefit of $100 per month for health plan costs. The actuarial and related information required for the Authority to recognize its share of the total other postemployment benefit obligation and related accounts attributed to this plan was not timely provided by the ERS. The Authority's share of this liability was estimated by the ERS actuaries for measurement dates of June 30, 2018 and 2017 at $45.9 million and $48.3 million, respectively, to be reported in fiscal years 2018 and 2019, respectively. As a result, the Authority restated its 2018 net position to properly recognize its share of this liability. Please refer to Note 15 for further details.

The Central Government and its component units are considered to be one employer with respect to the ERS MIPC. Other employers also participate in the Plan. Because certain employers that are component units of the Commonwealth, such as the Authority, prepare individual financial statements, a proportionate share or other post-employment benefit expense is determined for these employers. GASB. Statement No. 75 requires that such proportionate share should be consistent with the manner in which amounts that are paid as benefits come due are determined. The proportionate share as of each measurement date is based on the ratio of each agency and component unit's actual benefit payments to the total actual benefit payments paid during the year ending on the measurement date.

Because all participants in this ERS post-employment benefit plan are inactive, there are no deferred inflows and outflows as any changes due to changes in actuarial assumptions or economic or demographic gains and losses are recognized immediately during the measurement year. However, a deferred outflow has been recognized only for the amount of the benefit payments made by the Authority subsequent to the measurement date, of approximately $3.7 million and $3.8 million during 2019 and 2018, respectively.

Net Position

The net position is the difference between an entity's assets plus deferred outflows of resources and its liabilities plus deferred inflows of resources.

Net position is reported in three categories:

- ***Net Investment in Capital Assets*** – Includes capital assets, net of accumulated depreciation and amortization and reduced by outstanding balances for bonds, notes, and other debt that are attributed to the acquisition, construction, or improvement of those assets. Debt pertaining to significant unspent debt proceeds is not included in the calculation of net investment in capital assets.

- ***Restricted Net Position*** – Reflect constraints on the use of net assets that are either externally imposed by creditors, grantors, contributors, and the like, or imposed by agreements, law through constitutional provisions or enabling legislation.

- ***Unrestricted Net Position*** – Consist of net assets, which do not meet the definition of the two preceding categories. Unrestricted net position could be designated to indicate that management considers certain amounts to be available for general operations. Unrestricted net position often has constraints on resources that are imposed by management that can be removed or modified

Use of Estimates

Management of the Authority has made several estimates and assumptions related to the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the basic financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

Effects of New Pronouncements

The following GASB statements were adopted in fiscal year 2019:

- GASB Statement No. 73, Accounting and Financial Reporting for Pensions and Related Assets that are not within the scope of GASB Statement No. 68, establishes requirements for defined benefit pension plans and defined contribution plans that are not within the scope of GASB Statement No. 68. GASB Statement No. 73 extends the approach to accounting and financial reporting established in GASB Statement No. 68 to all pensions to reflect that for accounting and financial reporting purposes, any assets accumulated for pensions that are provided through pension plans that are not administered through trusts that meet the criteria specified in GASB Statement No. 68, should not be considered pension plan assets. It also requires that information similar to that required by GASB Statement No. 68 be included in the notes to financial statements and required supplementary information by all similarly situated employers and non-employer contributing entities. This statement was adopted by the Authority during fiscal year 2019 as a result of the implementation of the PayGo system created pursuant to the enactment of Act 106-2017, applying the measurement date as of June 30, 2018.

- GASB Statement No. 95, *Postponements of Effective Dates of Certain Authoritative Guidance*. The primary objective of this Statement is to provide temporary relief to governments and other stakeholders in light of the COVID-19 pandemic. That objective is accomplished by postponing the effective dates of certain provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018, and later.

  The effective dates of certain provision contained in the following pronouncements are postponed by one year after the implementation date:

  - GASB Statement No. 83, Certain Asset Retirement Obligations
  - GASB Statement No. 84, Fiduciary Activities
  - GASB Statement No. 88, Certain Disclosures Related to debt including Direct Borrowings and Direct Placements
  - GASB Statement No. 89, Accounting for Interest Costs Incurred before the End of a Construction Period
  - GASB Statement No. 90, Majority Equity Interests
  - GASB Statement No. 91, Conduit Debt Obligations
  - GASB Statement No. 92, Omnibus 2020
  - GASB Statement No. 93, Replacement of Interbank Offered Rates
  - GASB Implementation Guide No. 2017-3, Accounting and Financial Reporting for Post-Employment Benefits Other Than Pensions (and Certain Issues Related to OPEB Plan Reporting)
  - GASB Implementation Guide No. 2018-01, Implementation Guidance Update-2018
  - GASB Implementation Guide No. 2019-01, Implementation Guidance Update-2019
  - GASB Implementation Guide No. 2019-02, Fiduciary Activities

The effective dates of certain provision contained in the following pronouncements are postponed by eighteen (18) months after the implementation date:

- GASB Statement No. 87, Leases
- GASB Implementation Guide No. 2019-3, Leases

Earlier application of the provisions addressed in this Statement is encouraged and is permitted to the extent specified in each pronouncement as originally issued.

Future Adoption of Accounting Standards

GASB has issued the following accounting standards that the Authority has not yet adopted:

GASB Statement No.	Name	Adoption required in fiscal year
83	Certain Asset Retirement Obligations*	2019
84	Fiduciary Activities	2020
87	Leases	2021
88	Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*	2019
89	Accounting for Interest Cost Incurred Before a Construction Period	2021
90	Majority Equity Interests – an amendment of GASB Statements No. 14 and No. 61	2020
91	Conduit Debt Obligations	2021
92	Omnibus 2020	2021
93	Replacement of Interbank Offered Rates	2021
94	Public-Private and Public-Public Partnerships and Availability Payments Arrangements	2023
96	Subscription-Based Incorporation Technology Arrangements (SBITA)	2023
97	Certain Component Unit Criteria and Accounting and Financial Reporting for Internal Revenue Code 437 Deferred Compensation Plans**	2022

*As per GASB Statement No. 95, the effective date was postponed by one additional year.

**Certain provisions are effective immediately.

The Authority is evaluating the impact that these statements may have, if any, on its future financial statements.

Commonwealth Appropriations

The Authority may receive appropriations from the Commonwealth, which are classified as non-operating revenue or capital contributions as specified in Joint Resolutions approved by the Puerto Rico Legislature. Commonwealth Appropriations to pay for operating expenses are classified as non-operating contributions. Commonwealth Appropriations to pay for debt service are classified as non-operating revenues and appropriations for capital projects are classified as capital contributions. During fiscal year 2019 and 2018, Authority did not receive Commonwealth Appropriations.

Federal Grants and Other Contributions

The Authority receives contributions for capital projects from Developers, the Commonwealth Governmental Agencies, and Federal Agencies, such the US Department of Agriculture ("USDA") (through the Rural Development program) and the Environmental and Protection Agency ("EPA") (through the State Revolving Funds Program). The Authority also receives contributions from the Federal Emergency Management Administration ("FEMA") and other federal agencies for recovery and resiliency operating expenses and capital projects, when a natural disaster occurs and its declared state of emergency by the president of the United States of America.

(2) Deposits

As of June 30, 2019 and 2018, the carrying amount of deposits with financial institutions of the Authority consisted of the following (in thousands):

	June 30,					
	2019		2018			
	Carrying amount	Bank balance	Carrying amount	Impairment loss	Net Carrying amount	Bank balance
Unrestricted deposits in commercial banks in Puerto Rico	$ 377,875	$ 416,574	$ 233,626	$ –	$ 233,626	$ 235,003
Restricted deposits in commercial banks in Puerto Rico	432,573	431,281	360,766	–	360,766	360,766
Restricted deposits in Government Development Bank of Puerto Rico	–	–	14,444	(9,795)	4,649	14,444
Federal funds held in custody	6,384	6,384	–	–	–	–
Total	$ 816,832	$ 854,239	$ 608,836	$ (9,795)	$ 599,041	$ 610,213

Cash and cash equivalents consist of demand deposits, interest-bearing accounts, and certificates of deposit, as described in Note 1.

(3) *Custodial Credit Risks Related to Deposits and Impairment Loss on Deposits with Governmental Bank*

Pursuant to the laws of the Commonwealth, the Authority's cash is required to be held only in banks designated as depository institutions of public funds by the Commonwealth's Secretary of the Treasury. The Commonwealth requires that public funds deposited in commercial banks in Puerto Rico must be fully collateralized for the amount deposited in excess of federal depository insurance. All securities pledged as collateral are held by the Secretary of the Treasury of the Commonwealth.

Custodial credit risk is the risk that, in the event of a bank failure, the Authority's deposits might not be recovered. Deposits maintained at the Government Development Bank for Puerto Rico ("GDB") are exempt from the collateral requirements established by the Commonwealth and thus represent a custodial credit risk. As result of GDB's cease of operations, the Authority recognized an impairment over deposits held at GDB.

The Authority was exposed to the following custodial credit risk arising from the balance of deposits maintained in governmental banks as follows (in thousands):

	June 30,			
	2019		2018	
Uninsured and uncollateralized:				
GDB	$	-	$	14,444
Less: Impairment loss		-		(9,795) [1]
Total	$	-	$	4,649

Note: 1. This impairment loss was recognized in fiscal year 2016.

On April 8, 2016, GDB was declared to be in state of emergency with the signature of executive order EO-2016-010 ("the Executive Order"), in accordance with the emergency powers provided for in Act No. 21, which was signed into law on April 6, 2016 (the Moratorium Act). The Executive Order implemented a regulatory framework governing GDB's operations and liquidity, including establishing a new procedure with respect to governmental withdrawals, payments, and transfer request in respect to funds held on deposit at GDB. The procedures implemented by the Executive Order resulted in restrictions on the ability of the Authority to withdraw the funds held on deposit at GDB, which had an adverse impact on the Authority's financial condition, liquidity and results of operations.

Under the Moratorium Act (subsequently amended by Act No 5 of 2017, *the Puerto Rico Financial Emergency and Fiscal Responsibility Act*), the Puerto Rico Fiscal Agency and Financial Advisory Authority ("FAFAA"), was created to assume, among other functions, the fiscal agency and financial advisory responsibilities that were previously held by GDB. With these measures, the GDB's management effectively concluded that an orderly wind down of its operations and a restructuring of its debt under Title VI of the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA) would mitigate the impact on its stakeholders (municipalities, depositors, and other creditors, etc.).

As a result, the Authority recognized an impairment loss on deposits held with GDB of $9.8 million during the year ended June 30, 2016. The balance of the deposits which was not impaired of $4.6 million as of June 30, 2016, consisted of federal grants received under the United Stated Department of Agriculture (USDA) Rural Development Program to finance construction projects required by the federal program.

Pursuant to the terms of the Qualifying Modification, as further explained in Note 12, the Commonwealth restored $6.4 million of funds from federal programs held at GDB, including $6.3 million related to USDA Rural Development Program, of which $1 million was held by the Authority as it was related to fleet purchases financed by a USDA Loan paid in full by PRASA on July 2019 and $5.3 million were transferred to USDA on January 28, 2021, as they were related to projects with no further outstanding invoices. Pursuant the Qualifying Modification, the remaining funds deposited at GDB were reduced from the balance owed by the Authority to GDB under a term loan, as further discussed in Note 12. As a result of these transactions, the Authority recorded a custodial credit loss recovery of $9.5 million during the year ended June 30, 2019, which is presented within other income in the accompanying Statements of Revenues, Expenses and Changes in Net Position.

(4) Accounts Receivable

Accounts receivable are primarily for water and sewer services provided to residential, industrial, commercial and government customers, and as of June 30, 2019 and 2018 consisted of the following (in thousands):

	June 30	
	2019	2018
Water and sewer services:		
Residential, industrial, and commercial	$ 773,746	$ 768,423
Government agencies and municipalities	108,236	134,871
	881,982	903,294
Other receivables:		
Government agencies	7,146	7,146
Private entities	31,949	32,420
	39,095	39,566
Less allowance for uncollectible accounts	(737,742)	(703,126)
Total	$ 183,335	$ 239,734

(5) Other Receivables

Receivables from Insurance Companies

Following GASB Statement No. 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*, the Authority recognized a receivable from insurance companies of $186 million as of June 30, 2018, collected in full during fiscal year 2019. Such balance reflected the amount received on 2019 from the insurance companies under the property insurance policy coverage for the business interruption and asset damages caused by hurricane María.

Receivables from Federal Agencies

Receivables from federal agencies of approximately $35.0 million and $26.5 million as of June 30, 2019 and 2018, respectively, consisted primarily of amounts to be received from FEMA of the U.S. Department of Homeland Security (“USDHS”) as reimbursement for expenses incurred by the Authority for disaster recovery activities, following the state of emergency declaration made by the president of the United State of America, for the territory of Puerto Rico after the extreme damages caused by hurricanes Irma and María.

Receivables from Commonwealth

Receivables from Commonwealth amounted to approximately $4.7 million as of June 30, 2019 and $3.7 million as of June 30, 2018. Approximately $3.7 million of this balance is related to prepaid interest by the Authority on the Public Financing Corporation (“PFC”) 2011 Series B Bonds to be reimbursed. As of June 30, 2019 and 2018, $3.7 million of this receivable from Commonwealth is reserved.

(6) Materials and Supplies Inventory

Material and supplies inventory were approximately $30.8 million and $29.4 million as of June 30, 2019 and 2018, respectively and consisted of materials and supplies needed for the operation and maintenance of the water and sewer system and for the replacement of water meters.

(7) Capital Assets

Utility plant and other capital assets as of June 30, 2019 were as follows (in thousands):

	Beginning Balance As restated	Increases	Decreases	Ending Balance
Capital assets not being depreciated:				
Land	$ 64,365	$ -	$ -	$ 64,365
Easement	10,591	-	-	10,591
Construction in progress	323,418	62,869	(35,165)	351,122
Total capital assets not being depreciated	398,374	62,869	(35,165)	426,078
Capital assets being depreciated:				
Infrastructure (water and sewer facilities)	9,518,446	30,667	(3,424)	9,545,689
Wells, tanks and meters	668,142	388	-	668,530
Buildings and improvements	82,908	326	-	83,234
Equipment, furniture, fixtures and vehicles	392,918	1,401	-	394,319
Total capital assets being depreciated	10,662,414	32,782	(3,424)	10,691,772
Less: accumulated depreciation and amortization:				
Infrastructure (water and sewer facilities)	(4,223,128)	(235,318)	1,935	(4,456,511)
Wells, tanks and meters	(297,771)	(21,771)	-	(319,542)
Buildings and improvements	(44,677)	(1,360)	-	(46,037)
Equipment, furniture, fixtures and vehicles	(335,020)	(16,206)	-	(351,226)
Total accumulated depreciation and amortization	(4,900,596)	(274,655)	1,935	(5,173,316)
Total capital assets being depreciated, net	5,761,818	(241,873)	(1,489)	5,518,456
Total capital assets, net	$ 6,160,192	$ (179,004)	$ (36,654)	$ 5,944,534

Utility plant and other capital assets as of June 30, 2018 were as follows (in thousands):

	Beginning Balance	Increases	Decreases	Ending Balance	Restatement	Ending Balance
Capital assets not being depreciated:				*As previously reported*		*As restated*
Land	$ 64,358	$ 7	$ -	$ 64,365	$ -	$ 64,365
Easement	10,555	36	-	10,591	-	10,591
Construction in progress	333,410	52,135	(62,127)	323,418	-	323,418
Total capital assets not being depreciated	408,323	52,178	(62,127)	398,374	-	398,374
Capital assets being depreciated:						
Infrastructure (water and sewer facilities)	9,659,757	69,762	(211,073)	9,518,446	-	9,518,446
Wells, tanks and meters	772,765	12,791	(117,414)	668,142	-	668,142
Buildings and improvements	111,069	10,114	(38,275)	82,908	-	82,908
Equipment, furniture, fixtures and vehicles	392,280	19,040	(18,402)	392,918	-	392,918
Total capital assets being depreciated	10,935,871	111,707	(385,164)	10,662,414	-	10,662,414
Less: accumulated depreciation and amortization:						
Infrastructure (water and sewer facilities)	(3,708,270)	(225,017)	3,889	(3,929,398)	(293,730)	(4,223,128)
Wells, tanks and meters	(272,598)	(26,376)	-	(298,974)	1,203	(297,771)
Buildings and improvements	(42,641)	(1,652)	-	(44,293)	(384)	(44,677)
Equipment, furniture, fixtures and vehicles	(322,115)	(19,468)	-	(341,583)	6,563	(335,020)
Total accumulated depreciation and amortization	(4,345,624)	(272,513)	3,889	(4,614,248)	(286,348)	(4,900,596)
Total capital assets being depreciated, net	6,590,247	(160,806)	(381,275)	6,048,166	(286,348)	5,761,818
Total capital assets, net	$ 6,998,570	$ (108,628)	$ (443,402)	$ 6,446,540	$ (286,348)	$ 6,160,192

On fiscal year 2018, after the 2017 Hurricanes impact, the Authority, through an engineer's firm, performed an assessment of its assets, which included site visits to the principal facilities and properties to identify and estimate damages to the Authority's system resulting from the 2017 Hurricanes. Based on such analysis, the Authority registered an asset impairment of $194 million and insurance proceeds of $135 million (net of adjusters broker fee for the year ended June 30, 2018) following GASB Statement No. 42. The impairment was calculated by using the Restoration Cost Approach which derives the amount of impairment from the estimated cost to restore the utility of the capital asset to its original condition.

During fiscal year 2019 the Authority restated the depreciation and the net value of some assets, resulting in an increase of accumulated depreciation of $286 million as further described in the Note 18.

(8) Restricted Assets

Restricted assets consist of the following:

Construction Funds – Amounts in construction funds represent unspent bond proceeds, which will be used to pay the cost of construction of infrastructure projects. It also includes funds designed by the Authority for specific projects such as water sustainability and others project.

Capital Activity Funds –Capital activity funds represent amounts deposited as required by the annual budget into the Capital Improvement Fund held by the Trustee as well as funds deposited to comply with agreements requiring construction of infrastructure projects, including fines and penalties assessed by EPA that will be used for construction of infrastructure projects to provide water and sewer services and to comply with environmental regulations.

Debt Service Funds **–** Including amounts deposited for the payment of principal and interest on bonds and notes. They also include deposits required by the MAT to be maintained in the Debt Service Reserve accounts.

Disaster Recovery Funds **–** Include funds received from FEMA and other federal agency or insurance proceeds to be invested in infrastructure projects for the system recovery after disaster emergencies, such as hurricanes, tropical storms, earthquakes, and others.

Operating Reserve Fund **–** Including deposits to comply with the Operating Reserve Fund requirement required by the Master Agreement of Trust (MAT).

The Authority's restricted cash and cash equivalent includes $251.6 million and $216.4 million as of June 30, 2019 and 2018, respectively, classified as current assets to be used for current debt service payment obligations or for potential short term operating needs, through the Operating Reserve Fund.

Restricted assets by category as of June 30, 2019 and 2018 consisted of the following (in thousands):

	June 30	
	2019	**2018**
Construction Funds	$ 90,717	$ 53,569
Capital Activity Funds	108,364	81,418
Debt Service Funds	239,876	240,223
Less: Reserve on loss on deposits impairment	-	(9,795)
	$ 438,957	$ 365,415

(9) Accrued Liabilities

Accrued liabilities as of June 30, 2019 and 2018 consisted of the following (in thousands):

	June 30	
	2019	**2018**
Payroll and related accruals	$ 43,427	$ 109,392
Legal, labor related and environmental contingencies	89,928	72,478
Contract retentions	11,167	15,658
Total	$ 144,522	$ 197,528

(10) Early Retirement Obligations

On December 8, 2015, the Commonwealth enacted Act No. 211 (Act 211) to establish a program for eligible employees of the Commonwealth of Puerto Rico who voluntarily early retire of their employment in an incentivized program until they comply with the requirements to retire.

Act 211 provides for a compensation equivalent to 60% of each employee salary, the liquidation of vacations and sick leave accrued balances, up to the maximum days as established by Act. No 66 of 2014 for eligible employees.

In addition, employees will maintain health plan coverage and employer contribution for a maximum term of two years.

On August 23, 2017, Act 106-2017 repealed Act. 211; however, articles 7.1 (a), (b), (c) and (d) of Act No. 106-2017 guarantee all the rights and obligations created under Act 211.

As of June 30, 2019 and 2018, unpaid long term benefits granted in Act 211 were discounted by a rate of 2.40%.

The impact of Act No.211 for the Authority for the year ended on June 30, 2018 was approximately $48.2 million. During the year ended June 30, 2019, there was no cost related to this termination benefit. See Note 11.

(11) Long-Term Debt

Long-term debt activity for the year ended June 30, 2019 was as follows (in thousands):

	June 30, 2019					
	Beginning balance As restated	Additions/ amortization	Reductions	Ending balance	Due within one year	Due thereafter
Bonds payable:						
2011 Series A PFC Commonwealth Appropriation Bonds	$ 90,099	$ -	$ -	$ 90,099	$ -	$ 90,099
2011 Series B PFC Commonwealth Appropriation Bonds	102,183	-	-	102,183	-	102,183
2011 Series B PFC Commonwealth Appropriation Bonds	162,700	-	-	162,700	-	162,700
2012 Series A PFC Commonwealth Appropriation Bonds	56,247	-	-	56,247	-	56,247
2008 Series A Revenue Bonds	1,260,650	-	(16,650)	1,244,000	17,670	1,226,330
2008 Series B Revenue Bonds	22,445	-	-	22,445	-	22,445
2008 Series A Revenue Refunding Bonds	159,055	-	-	159,055	-	159,055
2008 Series B Revenue Refunding Bonds	125,700	-	-	125,700	-	125,700
2012 Series A Revenue Bonds	1,733,395	-	-	1,733,395	38,340	1,695,055
2012 Series B Revenue Bonds	230,545	-	(36,705)	193,840	-	193,840
Rural Development Serial Bonds	389,096	-	(679)	388,417	3,254	385,163
Sub total bonds	4,332,115	-	(54,034)	4,278,081	59,264	4,218,817
Add bond premium	24,596	-	(633)	23,963	666	23,297
Less bond discount	(15,435)	-	223	(15,212)	(235)	(14,977)
Total bonds	4,341,276	-	(54,444)	4,286,832	59,695	4,227,137
Notes payable:						
Water Pollution Control and Safe Drinking Water Treatment Revolving Funds Loans	580,275	-	(10,000)	570,275	10,833	559,442
Notes with GDB Debt Recovery Authority	65,550	-	(7,807)	57,743	-	57,743
Total notes	645,825	-	(17,807)	628,018	10,833	617,185
Other long term liabilities:						
Total Pension Liabilty	1,407,287	419,092	(153,499)	1,672,880	91,017	1,581,863
Accrued compensated absences	40,560	7,944	(13,320)	35,184	9,241	25,943
Total OPEB obligation	123,784	4,411	(6,817)	121,378	3,957	117,421
Early retirement obligation	48,242	-	(9,135)	39,107	8,300	30,807
Customers' deposits	89,601	9,413	(7,878)	91,136	8,046	83,090
Total other liabilities	1,709,474	440,860	(190,649)	1,959,685	120,561	1,839,124
Total – long-term obligations	$ 6,696,575	$ 440,860	$ (262,900)	$ 6,874,535	$ 191,089	$ 6,683,446

Long-term debt activity for the year ended June 30, 2018, as restated, is presented below (in thousands):

	June 30, 2018					
	Beginning balance	Additions/ amortization	Reductions	Ending balance	Due within one year	Due thereafter
Bonds payable:						
2011 Series A PFC Commonwealth Appropriation Bonds	$ 90,099	$ -	$ -	$ 90,099	$ -	$ 90,099
2011 Series B PFC Commonwealth Appropriation Bonds	102,183	-	-	102,183	-	102,183
2011 Series B PFC Commonwealth Appropriation Bonds	162,700	-	-	162,700	-	162,700
2012 Series A PFC Commonwealth Appropriation Bonds	56,247	-	-	56,247	-	56,247
2008 Series A Revenue Bonds	1,276,340	-	(15,690)	1,260,650	16,650	1,244,000
2008 Series B Revenue Bonds	22,445	-	-	22,445	-	22,445
2008 Series A Revenue Refunding Bonds	159,055	-	-	159,055	-	159,055
2008 Series B Revenue Refunding Bonds	125,700	-	-	125,700	-	125,700
2012 Series A Revenue Bonds	1,768,375	-	(34,980)	1,733,395	-	1,733,395
2012 Series B Revenue Bonds	230,545	-	-	230,545	36,705	193,840
Rural Development Serial Bonds	392,646	-	(3,550)	389,096	4,236	384,860
Sub total bonds	4,386,335	-	(54,220)	4,332,115	57,591	4,274,524
Add bond premium	25,196	-	(600)	24,596	633	23,963
Less bond discount	(15,647)	-	212	(15,435)	(224)	(15,211)
Total bonds	4,395,884	-	(54,608)	4,341,276	58,000	4,283,276
Notes payable:						
Water Pollution Control and Safe Drinking Water Treatment Revolving Funds Loans	581,275	-	(1,000)	580,275	10,000	570,275
Notes with commercial banks	1,611	-	(1,611)	-	-	-
Notes with GDB	65,550	-	-	65,550	-	65,550
Total notes	648,436	-	(2,611)	645,825	10,000	635,825
Other long term liabilities:						
Net Pension Liabilty	1,575,926	-	(168,639)	1,407,287	92,674	1,314,613
Accrued compensated absences	43,300	9,643	(12,383)	40,560	10,069	30,491
Total OPEB obligation	74,549	52,184	(2,949)	123,784	11,741	112,043
Early retirement obligation	-	48,242	-	48,242	-	48,242
Customers' deposits	88,372	7,912	(6,683)	89,601	7,771	81,830
Total other liabilities	1,782,147	117,981	(190,654)	1,709,474	122,255	1,587,219
Total – long-term obligations	$ 6,826,467	$ 117,981	$ (247,873)	$ 6,696,575	$ 190,255	$ 6,506,320

(12) Bonds Payable

Bonds payable as of June 30, 2019 and 2018, consisted of the following (in thousands):

	June 30	
	2019	**2018**
PFC Commonwealth Appropriation Bonds:		
Series 2011:		
Series A, 6.50% due in semiannual interest payments through August 1, 2028 and annual principal installments from August 1, 2027 to 2028	$ 90,099	$ 90,099
Series B, 5.50% – 6.00% due in semiannual interest payments through August 1, 2031 and annual principal installments from August 1, 2024 to 2031	102,183	102,183
Series B, 5.50% – 6.00% due in semiannual interest payments through August 1, 2031 and annual principal installments from August 1, 2024 to 2031	162,700	162,700
Series 2012:		
Series A, 3.10% – 5.35% due in semiannual interest payments through August 1, 2031 and annual principal installments from August 1, 2015 to 2031	56,247	56,247
Revenue Refunding Bonds:		
Series 2008:		
Series A and B, Term Bonds, 5.80% – 6.10% due in monthly interest payments through July 1, 2034 and annual principal payments from July 1, 2021 to 2034	284,755	284,755
Revenue bonds:		
Series 2008:		
Series A, Serial Bonds, 5.00%, due in semiannual interest payments through July 1, 2025 and annual principal payments from July 1, 2012 to July 1, 2025	25,240	25,240
Series A, Convertible Capital Appreciation Bonds, 6.125%, due in semiannual interest payments from January 1, 2012 through July 1, 2024 and annual principal payments from July 1, 2017 to 2024	123,635	140,285
Series A, Term Bonds, 5.00% – 6.00%, due in semiannual interest payments through July 1, 2047 and annual principal payments from July 1, 2026 to 2047	1,095,125	1,095,125
Series B, Serial Bonds, 6.15% due in monthly interest payments through July 1, 2038 and one principal payment on July 1, 2038	22,445	22,445

	June 30 2019	June 30 2018
Series 2012:		
Series A, Serial Bonds, 4.00% - 5.50%, due in semiannual interest payments through July 1, 2030 and annual principal payments from July 1, 2015 to 2030	351,400	351,400
Series A, Term Bonds, 5.00% – 6.00%, due in semiannual interest payments through July 1, 2047 and annual principal payments from July 1, 2033 to 2047	1,381,995	1,381,995
Series B, Serial Bonds, 3.35% - 5.00% due in monthly interest payments through July 1, 2023 and annual principal payments from July 1, 2014 to July 1, 2023	86,725	123,430
Series B, Terms Bonds, 5.35% due in monthly interest payments through July 1, 2027 and one principal payment on July 1, 2027	107,115	107,115
Rural development serial bonds:		
Serial bonds, 2.00% – 5.00%, due semiannually through July 1, 2055	388,417	389,096
Subtotal	4,278,080	4,332,115
Bond premiums	23,963	24,596
Bond discounts	(15,212)	(15,435)
Total	$ 4,286,832	$ 4,341,276

Act 164 PFC Bonds

The PFC Bonds are limited obligations of PFC payable solely from the proceeds of principal and interest on certain promissory notes. On December 17, 2001, Act No. 164 ("Act 164") of the Commonwealth authorized to issue to PFC by certain departments, agencies, instrumentalities, and public corporations (the "Authorized Debtors") of the Commonwealth, including the Authority, Notes (the "Notes") which are payable solely from budgetary appropriations approved annually by the Legislature of Puerto Rico pursuant to certain legislations. The proceeds were used to restructure outstanding obligations with GDB.

Act 164 stipulates the Commonwealth's Office of Management and Budget ("OMB") should include the amounts required to pay debt service on the Notes in the proposed annual budget of the Commonwealth submitted by the Governor to the Legislature of Puerto Rico (the "Legislature"). However, the Legislature is not legally required to appropriate funds for such payments.

On July 31, 2007, December 20, 2007 and June 26, 2008, the Puerto Rico Sales Tax Financing Corporation (known as COFINA), issued its Sales Tax Revenue Bonds Series 2007A and 2007B, Series 2007C and Series 2008A, respectively, to refinance certain of the Act 164 PFC Bonds outstanding and the corresponding notes issued by PFC by certain of the Commonwealth's agencies and component units including the Authority. The Series 2007A and B proceeds were deposited in escrow with The Bank of New York Mellon as master escrow agent. As a result, approximately $180.2 million of the Authority's share of the Act 164 PFC Bonds were considered defeased. The proceeds of the Series 2007C Bonds were used, in part, to purchase and cancel approximately $61.4 million of the Authority's share of the Act 164 PFC Bonds. The proceeds of the Series 2008A Bonds were used to purchase and cancel approximately $127.4 million of the Authority's share of the Act 164 PFC Bonds. After the COFINA debt refunding, the Authority's share of the Act 164 PFC Bond balance was reduced to approximately $369 million.

On August 18, 2011, December 8, 2011 and June 28, 2012, PFC issued 2011 Series A, 2011 Series B and 2012 Series A Refunding Bonds for the amount of $242.4 million, $437.6 million and $410.6 million, respectively, for the purpose of refunding its outstanding bonds. The net proceeds from the refunding bonds, after payment of the cost of issuance and bond premium, were used to advance refund PFC's previously issued bonds in order to obtain lower interest rates. The Authority's share of these previous bond issuances was removed from the balance sheet.

The Authority's share of 2011 Series A, 2011 Series B and 2012 Series A PFC Refunding Bonds is included in the Authority's balance sheets as of June 30, 2019 and 2018.

On December 13, 2011, COFINA, issued its Sales Tax Revenue Bonds Series 2011C, to refinance certain of the Act 164 PFC bonds outstanding and the corresponding notes issued by PFC by certain of the Commonwealth's agencies and component units, including the Authority. As a result of this issuance, approximately $121.5 million of the Authority's share of the Act 164 PFC Bonds were considered defeased.

As of June 30, 2011, the Authority's share of the Act 164 PFC Bonds was approximately $341.6 million. As of June 30, 2012, following the issuance of the 2011 Series A and B, 2012 Series A PFC Refunding Bonds and COFINA 2011 Series C Refunding Bonds there was no outstanding balance of Act 164 PFC Bond.2011 Series A and B and 2012 Series A PFC Refunding Bonds.

On August 18, 2011, December 8, 2011 and June 28, 2012, PFC issued 2011 Series A, 2011 Series B and 2012 Series A Refunding Bonds for the amount of $242.4 million, $437.6 million, and $410.6 million, respectively. The net proceeds from such refunding bonds, after payment of the cost of issuance and bond premium, were used to advance refund the Authority's share of the 2004 Series A PFC Bonds $326.8 million. The Authority's share on these previous bond issuances was removed from the balance sheet. The difference between the proceeds and the net carrying amount of the old debt is presented as a deferred outflow of resources and is being charged to operations using the effective interest rate method.

As of June 30, 2019, and 2018, the Authority's share for the 2011 Series A, 2011 Series B, 2011 Series B Superaqueduct and 2012 Series A Refunding Bonds is approximately $90.1 million, $102.2 million, $162.7 million and $56.2 million, respectively.

Due to the non-appropriation of funds by the Legislature for the payments of the Notes in the Commonwealth's annual budget since fiscal year 2016 and the subsequent filing by the Financial Oversight and Management Board for Puerto Rico (the "Oversight Board") of a Title III case on behalf of the Commonwealth in July, 2017, none of the payments on the Notes, or any corresponding payments on the PFC Bonds, that have come due and payable in fiscal year 2016 or thereafter has been paid.

The Authority has no legal obligation to pay the PFC Bonds if no Puerto Rico legislative appropriations for such purpose have been made. While the Authority in the past has paid debt service on the PFC Bonds when Authority Revenues were available for such purpose, it has not made any such debt service payments on the PFC Bonds since 2011. Payment of Commonwealth Supported Obligations is not secured by a pledge of Authority Revenues under the Trust Agreement. Under the Trust Agreement, if the Authority does not make this payment, the obligation is not cumulative and, therefore, does not carry forward to future periods; failure to make these payments or deposits in respect thereof is not an event of default under the Trust Agreement.

The Commonwealth's obligations under the PFC Bonds are subject to ongoing bankruptcy proceedings of the Commonwealth under Title III of PROMESA.

2008 Series A and B Revenue Refunding Bonds

On March 18, 2008, the Authority issued approximately $284.8 million of Series A and B Revenue Refunding Bonds (the 2008 Revenue Refunding Bonds), guaranteed by the Commonwealth to refund the Authority's outstanding 1995 Revenue Refunding Bonds, (also guaranteed by the Commonwealth) in the amount of approximately $262.8 million (the "1995 Series Bonds"). The 2008 Revenue Refunding Bonds bear interest at rates ranging from 5.80% to 6.10% per annum with maturity dates ranging from July 1, 2021 to July 1, 2034. The 2008 Series A and B Revenue Refunding Bonds net proceeds of approximately $279.5 million (after payment of approximately $5.3 million in underwriters' discount, insurance, and other issuance costs) and other funds made available from sinking funds and investment accounts from the refunded bonds, were deposited in an irrevocable trust with an escrow agent to pay all future principal and interest payments of the 1995 Series Bonds to their respective dates of redemption or maturity. As a result, the 1995 Series Bonds are considered to be defeased and the liability for those bonds has been removed from the Authority's balance sheet.

The defeasance of the 1995 Series Bonds increased the Authority's total debt service payments over the next 25 years by approximately $292.8 million and resulted in an economic loss (difference between the present values of the old and new debt service payments) of approximately $12.7 million. The advance refunding resulted in a difference between the reacquisition price and the net carrying amount of the old debt of approximately $35.9 million. This difference, reported in the accompanying financial statements as a deferred outflow of resources, is being charged to operations through the year 2019 using the effective interest method.

The 2008 Revenue Refunding Bonds are guaranteed by the Commonwealth and the Authority's net revenue, as defined in the corresponding trust indenture, is pledged toward the payment of debt service on these bonds. The 2008 Revenue Refunding Bonds are subordinated to all senior and senior subordinated debt. As of June 30, 2019, and 2018, the outstanding balance for the 2008 Series A and B refunding Bonds was $284.8 million.

2008 Series A and B Revenue Bonds

On March 18, 2008, the Authority issued approximately $1,338.6 million of 2008 Series A and B Revenue Bonds (the 2008 Revenue Bonds).

The 2008 Series A and B Revenue Bonds net proceeds were used to repay certain outstanding bond anticipation notes, accrued interest and principal amount of lines of credit and to finance a portion of the Authority's Capital Improvement Program (the "CIP").

The 2008 Series A Revenue Bonds consisted of (1) $93.2 million of serial bonds bearing interest at 5% per annum with maturity dates ranging from July 1, 2012 to July 1, 2025, (2) $127.9 million of capital appreciation term bonds bearing interest at 6 1/8% per annum and with maturity date of July 1, 2024, and (3) $1,095.1 million of term bonds bearing interest at rates ranging from 5% to 6% per annum with maturity dates ranging from July 1, 2028 to July 1, 2047. As of June 30, 2019 and 2018, the outstanding balance for the 2008 Revenue Bonds Series A was $1,244.0 million and $1,260.7 million, respectively, which included approximately $28.0 million of accreted value.

The 2008 Series B Revenue Bonds consisted of $22.4 million term bond bearing interest at 6.15% per annum with maturity date of July 1, 2038.

The 2008 Series A and B Revenue Bonds were considered senior debt. As of June 30, 2019 and 2018, the outstanding balance for the 2008 Revenue Bonds Series B was $22.4 million.

Most of the 2008 Series A and B Revenue Bonds were refunded in December 2021, as explained in Note 21.

2012 Series A and B Revenue Bonds

On February 29, 2012, the Authority issued approximately $2,095.7 million of Series A and B Revenue Bonds (the 2012 Revenue Bonds).

The 2012 Series A Revenue Bonds of approximately $1,800.4 million were issued to (1) repay certain lines of credit provided by GDB to the Authority as interim financing for a portion of its capital improvement program, (2) finance a portion of the Authority's CIP, (3) make a deposit to a Budgetary Reserve Fund, (4) pay capitalized interest on the 2012 Series A Revenue Bonds through July 1, 2013, and (4) pay the costs of issuance and underwriters discounts.

The 2012 Series A Revenue Bonds consisted of (1) $418.4 million of serial bonds bearing interest at rates ranging from 4.0% to 5.55% per annum with maturity dates ranging from July 1, 2015 to July 1, 2030, and (2) $1,382.0 million of term bonds bearing interest at rates ranging from 5% to 6% per annum with maturity dates ranging from July 1, 2033 to July 1, 2047.

The 2012 Series B Revenue Bonds of approximately $295.2 million were issued to (1) provide funds to repay a bond anticipation note issued by the Authority in the aggregate principal amount of $241.0 million, the proceeds were used to repay certain of the Authority's outstanding indebtedness, (2) provide funds to repay certain lines of credit provided by GDB to the Authority to finance operating expenses and as interim financing for a portion of its CIP, (3) pay capitalized interest on Series B Bonds through July 1, 2013, and (4) pay the cost of issuance and underwriters discounts.

The 2012 Revenue Bonds Series B consisted of (1) $188.1 million of serial bonds bearing interest at rates ranging from 3.35% to 5.00% per annum with maturity dates ranging from July 1, 2014 to July 1, 2023, and (2) $107.1 million of term bonds bearing interest at 5.35% per annum with maturity date of July 1, 2027.

In connection with the 2012 Revenue Bond issuance, on January 24, 2012, the Authority's Board of Directors authorized the execution of an amended and restated MAT dated as of February 15, 2012, by and between the Authority and Banco Popular de Puerto Rico as Trustee. The MAT, as amended and restated changed from a net revenue pledge to a gross revenue pledge securing the repayment of the Authority's Senior, Senior Subordinated, and Subordinated debt, incurred by the Authority under the terms thereof, and changed the rate covenant requirements as explained in the Financial Covenant Note.

The 2012 Revenue Bonds were issued as Senior Debt, pursuant to the terms of the MAT. As of June 30, 2019 and 2018, the outstanding balance for 2012 Series A and B was $1,927.2 million and $1,963.9 million, respectively.

The 2012 Revenue Bonds were refunded or expected to be refunded through a forward delivery as explained in Note 22.

Rural Development Serial Bonds

The USDA Rural Development Program assists the Authority in the financing and construction of aqueduct and sewer facilities in rural areas by purchasing revenue bonds from the Authority, the proceeds of which are used by the Authority to finance such projects.

As of June 30, 2019, the USDA Rural Development Program Bonds consisted of twenty-seven (27) separate series, issued from 1983 through 2015, bearing interest ranging from 2.0% to 5.0% due in semiannual installments through 2055. The outstanding balance of the USDA Rural Development Program Serial Bonds as of June 30, 2019 and 2018 was $388.4 million and $389.1 million, respectively.

The USDA Rural Development Program Bonds were guaranteed by the Commonwealth, pursuant Act No. 45 of the Legislative Assembly of Puerto Rico, approved on July 28, 1994, as amended ("Act No. 45"), and the Authority's net revenue was pledged toward the payment of debt service on the USDA Rural Development Program Bonds following the priorities defined in the MAT. Therefore, as of June 30, 2019 and 2018, the USDA Rural Development Program Bonds were subordinate to all senior and senior subordinated debt as well as to Operating Expenses, the Operating Reserve Fund and the Capital Improvement Fund.

The USDA Rural Development Program and Authority agreed to several forbearance agreements, starting on July 1, 2016 and, as amended, until July 31, 2019. As part of the forbearance agreements requirements, the Authority made payments for a total of $29.5 million.

On July 26, 2019, the Authority and FAFAA consummated a definitive agreement restructuring Authority's debt obligations under the USDA Rural Development, Rural Utilities Service program totaling $403 million, including accrued interest as of that date.

The agreement consolidated all the restructured USDA debt into a new loan with a 40-year maturity and 2% interest rate, with a $10 million annual debt service requirement from years 1 to 10 and $17 million annual debt service thereafter. The restructured USDA debt was designated as Other System Indebtedness in parity with other senior debt under the Authority's MAT and not guaranteed by the Commonwealth. Additional detail on the USDA debt restructuring is included in Note 22.

Debt Service Payments

Future principal and interest payments on all bonds payable outstanding as of June 30, 2019 are as follows (in thousands):

	Principal	Interest	Total
Fiscal year:			
2020	$57,507	$194,012	$251,519
2021	60,986	194,649	255,635
2022	72,876	191,741	264,617
2023	78,731	187,684	266,415
2024	83,273	182,405	265,678
2025-2029	507,299	838,817	1,346,116
2030-2034	692,642	683,060	1,375,702
2035-2039	762,647	487,053	1,249,700
2040-2044	867,022	269,584	1,136,606
2045-2049	545,495	72,328	617,823
2050-2054	72,650	12,087	84,737
2055-2059	80,282	4,486	84,768
Total	$3,881,410	$3,317,906	$7,199,316
Plus unamortized premium	23,963		
Less:			
Unamortized discount	(15,212)		
Bonds payable, net	$ 3,890,161		

As previously mentioned in this note, on July 26, 2019, the Authority restructured its debt obligations under the USDA Rural Development, Rural Utilities Service program. The future principal and interest payments on bonds payable presented above are based on the restructured new debt agreement with Rural Development including $13.9 million in accrued interest.

(13) Notes Payable

Notes payable as of June 30, 2019 and 2018, consisted of the following (in thousands):

	June 30	
	2019	**2018**
Puerto Rico Water Pollution Control Revolving Fund	$ 381,553	$ 391,553
Puerto Rico Safe Drinking Water Treatment Revolving Loan Fund	188,722	188,722
Notes with commercial banks and GDB Debt Recovery Authority	57,743	65,550
	$ 628,018	$ 645,825

Puerto Rico Water Pollution Control Revolving Fund and Safe Drinking Water Treatment Revolving Loans

The Authority receives federal funds for its CIP through various loans (the “SRF Loans”) granted by the Clean Water State Revolving Fund Programs (“CW-SRF”) and the Drinking Water State Revolving Fund Programs (“DW-SRF”) (and together with the CW-SRF, the “SRFs”), created under the federal Clean Water Act of 1972 and Safe Drinking Water Act of 1974, as amended, administered by the Commonwealth’s Environmental Quality Board (“EQB”) (succeeded by the Puerto Rico Department of Natural and Environmental Resources or PRDNER) and the Puerto Rico Department of Health (“PRDOH”), respectively. The SRF Loans were secured by a Commonwealth guaranty under Act No. 45 of the Legislative Assembly of Puerto Rico, approved on July 28, 1994, as amended.

In this respect, EQB and PRDOH, on behalf of the Commonwealth, are authorized to enter into operating agreements and capitalization grant agreements with the EPA. The Puerto Rico Infrastructure Financing Authority (“PRIFA”), a public corporation and instrumentality of the Commonwealth, as operating agent for the State Revolving Fund (“SRF”), is authorized to assist the PRDOH and the EQB in the administration, financial and accounting activities of the SRFs.

On December 18, 2018, a Deed of Trust was entered into, by and among PRIFA, EQB, and Banco Popular de Puerto Rico, as trustee (the “CWSRF Deed of Trust”); and on the same date a Deed of Trust was entered into, by and among PRIFA, DOH, and Banco Popular de Puerto Rico, as trustee (the “DWSRF Deed of Trust”).

The Authority has entered into revolving loan agreements with PRIFA to finance certain capital improvements to the system. As of June 30, 2019 and 2018, the Authority had an outstanding balance of approximately $570.3 million and $580.3 million, respectively, under these loan agreements.

The SRF Loan agreements were evidenced by promissory notes, which bear interest at a 2% annual rate payable semiannually. Construction loans are required to be paid in full within 20 years of the project completion date. The Authority has pledged its net revenues on a basis subordinate in all respects to the Authority’s outstanding bonds. If the Authority’s pledged net revenues were not sufficient for the payment of principal and interest, the payments due under the SRF Loans were guaranteed by the Commonwealth under Act No. 45.

On June 30, 2016, the Authority executed a Forbearance Agreement (the “SRF Forbearance Agreement”) with PRDOH, administrator of the DW-SRF Program, EQB and PRDNER, as administrators of the CW-SRF Program, and PRIFA, as operating agent for the SRFs, authorized to assist the PRDOH and EQB/PRDNER in the administration, financial and accounting activities of the SRFs. Under the SRF Forbearance Agreement, as further amended on several occasions, the payments due until July 1, 2019, inclusive, under the SRF Loans were deferred and the parties thereto agreed to forbear from exercising, or consenting to the exercise of, any enforcement of rights or remedies available to each under the SRF Loans subject to certain conditions and partial payments.

On July 26, 2019, PRASA and FAFAA consummated definitive agreements restructuring the Authority’s debt obligations under the SRFs in the amount of $570 million plus $26 million of funds for ongoing projects. The Agreements were approved by the Oversight Board pursuant to Section 207 of PROMESA and consolidated all the restructured debt into two SRF loans with a 30-year maturity term at 0% interest rate and $10 million annual principal-only payment from years 1 to 10 and 1% interest rate and $27 million annual debt service thereafter.

The restructured SRF loan was designated as Other System Indebtedness in parity with other senior debt under Authority’s MAT. Additional detail on the USDA debt restructuring is included in Note 22.

Fleet Term Loan

As authorized by the Board’s Resolution No. 2844, adopted on April 23, 2014, on November 3, 2014, the Authority entered into a credit agreement with Popular Auto, LLC, a limited liability company organized and existing under the laws of the Commonwealth, pursuant to the term of which such institution agreed to make borrowings available to the Authority in the aggregate principal amount of $7.5 million (the “Fleet Term Loan”) to be repaid by November 2, 2017. The Fleet Term Loan was designated by the Authority as Senior Subordinate Indebtedness, Other System Indebtedness and a Refundable Principal Installment pursuant to the terms of the Master Trust Agreement. The outstanding balance of the Fleet Term Loan was $1.6 million, which was paid in full during fiscal year 2018.

Note with GDB and GDB Debt Recovery Authority

On February 29, 2012, the Authority entered into a line of credit agreement with GDB. This agreement provided an available maximum amount of $150 million for the purpose of assisting with the Authority’s cash flow needs during the transition period after amending and restating the MAT as a result of the issuance of 2012 Revenue Bonds Series A and B. On June 27, 2014, the Authority and GDB executed an Amended and Restated Loan Agreement (the “Loan Agreement”) reducing the line of credit to the outstanding balance as of that date of $72.3 million and converting the interim loan to a term loan due and payable on March 31, 2019. The Loan Agreement has an amortization period of fifteen (15) years, which shall be payable in nineteen (19) quarterly payments, commencing on June 30, 2014, plus a final balloon payment (of such amount as may be the balance then outstanding) on the maturity date.

The Loan Agreement was subsequently transferred to the GDB Debt Recovery Authority, a statutory public trust and governmental instrumentality created pursuant to Act 109-2017, as amended (“GDB–DRA”) upon consummation of the GDB Qualifying Modification (the “Qualifying Modification”) under Title VI of PROMESA on November 29, 2018. At the time of the transfer to the GDB-DRA, the outstanding principal amount under the Loan Agreement was $57.5 million, plus accrued, and unpaid interest. On November 10, 2020, the Authority, AAFAF, GDB-DRA, and the servicer and collateral monitor for GDB-DRA reached an agreement in principle, contingent on Oversight Board approval, to resolve and settle in full all Authority obligations under the Loan Agreement for a one-time Authority payment in the amount of $20.5 million (the “Settlement

Agreement"). On November 20, 2020, the Oversight Board approved the settlement and that same day the Authority made the $20.5 million payment in full. Pursuant to the terms of the Settlement Agreement, the Loan Agreement was terminated and the Authority has no further obligation under it.

The combined future aggregate amount of debt service for the SRF loans, as restructured in July 2019 and including $26 million of new funds is presented below (in thousands):

	Principal	Interest	Total
2020	$ 5,000	$ —	$5,000
2021	67,743	—	67,743
2022	10,000	—	10,000
2023	10,000	—	10,000
2024	10,000	—	10,000
2025-2029	50,000	—	50,000
2030-2034	108,068	20,261	128,329
2035-2039	120,079	16,953	137,032
2040-2044	139,192	11,544	150,736
2045-2049	133,338	3,694	137,032
Total	$653,420	$52,452	$705,872

(14) Pension Plan

General Information of Pension Plan

Before the enactment of Act 106-2017, ERS was a multiple-employer cost-sharing hybrid defined benefit and defined contribution pension plan sponsored by and reported as a component unit of the Commonwealth. The ERS is a statutory trust created by Act No. 447 of May 15, 1951 as amended ("Act 447"). All regular employees of the Authority become members of the ERS as a benefit of their employment.

Members who had entered the Employees Retirement System before January 1, 2000 participated in a defined benefit program. Members who began to participate prior to April 1, 1990 ("Act 447 Participants") were entitled to the highest benefits structure, while those who began to participate on or after April 1, 1990 ("Act 1 Participants") were subject to a longer vesting period and a reduced level of benefits, as provided by Act No. 1 of February 16, 1990 ("Act 1 of 1990").

In 1999, Act 447 was amended to close the defined benefit program for new participants and, prospectively, establish a new benefit structure similar to a cash balance plan (this new benefit structure is referred to as System 2000). Members who entered the ERS on or after January 1, 2000 (System 2000 Participants) participate solely in System 2000. On April 4, 2013, the Governor of Puerto Rico, signed into law Act No. 3 of 2013, which represents a comprehensive reform of the ERS, effective on July 1, 2013.

Act 3-2013 amended the law to eliminate the lump sum distribution alternative and substitute it for a life annuity payable to the System 2000 Participant. System 2000 Participants do not benefit from any employer contributions. Instead, employer contributions made on account of System 2000 Participants are used to reduce the accumulated unfunded pension benefit obligation of the ERS. System 2000 is not a separate plan as there are no separate accounts for System 2000 Participants. Contributions received from System 2000 Participants are pooled and invested by the ERS together with the assets corresponding to the defined benefit structure of Act 447 and Act 1 of 1990 and the defined contribution structure of System 2000, as amended by Act 3-2013, will be paid from the same pool of assets of the ERS.

Act 106-2017 approved a substantial pension reform for all of the Commonwealth's retirement systems, including the ERS. This reform modified most of the ERS's activities, eliminated the employer contributions, created the legal framework to implement a PayGo system, and required the ERS to liquidate substantially all of its assets and to transfer the proceeds from such liquidation to the Commonwealth for the payment of pension benefits. Under the PayGo system, the Commonwealth's General Fund makes direct payments to the pensioners and then is reimbursed for those payments by the participating employer, including the Authority. Future benefits will not be paid by the ERS.

Under Act 106-2017, the ERS's board of trustees was eliminated and a new Retirement Board was created. Act 106-2017 also ordered a suspension of ERS's loan programs and ordered a merger of the administrative structures of the Retirement Systems. At the Retirement Board's discretion, the administration of ERS benefits may be externalized. The Retirement Board is currently responsible for governing both ERS, the Judiciary Retirement System (JRS), and Teachers Retirement Systems (TRS).

Act 106-2017 also created a Defined Contributions Plan, similar to a 401(k) plan, which is managed by a private entity. Act 106-2017 terminated the previously existing pension programs for ERS participants as of June 30, 2017. The members of the prior programs and new system members hired on and after July 1, 2017 have been enrolled into this new Defined Contributions Plan program. The accumulated balance on the accounts of the prior program were transferred to the member accounts in the new Defined Contributions Plan, effective as of June 22, 2020.

Total Pension Liability of the ERS

The total pension liability as of June 30, 2018 (the measurement date used for financial reporting for fiscal year 2019) was determined by an actuarial valuation as of July 1, 2017 that was rolled forward to June 30, 2018.

(1) *Actuarial Methods and Assumptions*

The actuarial valuation used the following actuarial methods and assumptions, applied to all periods in the measurement:

Actuarial cost method	Entry age normal
Actuarial assumptions:	
Inflation rate	Not applicable
Salary increases	3.0% per year. No compensation increases are assumed until July 1, 2021 as a result of Act No. 03-2017, four-year extension of Act No. 66-2014, and the current general economy

The mortality tables used in the actuarial valuations were as follows:

- Pre-retirement Mortality – For general employees not covered under Act No. 127, RP-2014 Employee Mortality Rates for males and females adjusted to reflect Mortality Improvement Scale MP-2018 from the 2006 base year, and projected forward using MP-2018 on a generational basis. For general employees covered under Act No. 127, RP-2014 Employee Mortality Rates were assumed with blue collar adjustments for males and females adjusted to reflect Mortality Improvement Scale MP-2018 from the 2006 base year and projected forward using MP-2018 on generational basis. As generation tables, they reflect mortality improvements both before and after the measurement date.
- Post-retirement Healthy Mortality - Rates that vary by gender are assumed for healthy retirees and beneficiaries based on a study of the plan's experience from 2007 to 2012 and updated expectations regarding future mortality improvement. The 2010 base rates are equal to 92% of the rates from the UP-1994 Mortality Table for males and 95% of the rates from the UP-1994 Mortality Table for females, both projected from 1994 to 2010 using Scale AA. The base rates are projected using Mortality Improvement Scale MP-17 on a generational basis. As a generational table, it reflected mortality improvements both before and after the measurement date.
- Post-retirement Disabled Mortality - Rates which vary by gender are assumed for disabled retirees based on a study of the plan's experience from 2007 to 2012 and updated expectations regarding future mortality improvement. The 2010 base rates are equal to 105% of the rates from the UP-1994 Mortality Table for males and 115% of the rates from the UP-1994 Mortality Table for females. The base rates were projected using Mortality Improvement Scale MP-17 on a generational basis. As a generational table, it reflects mortality improvements both before and after the measurement date.

  Actuarial assumptions were revised periodically to more closely reflect actual, as well as anticipated future experience. Due to the change in the census collection date to the beginning of the fiscal year, rather than the end of the fiscal year, demographic gain/loss during the year was limited to the difference between actual and expected benefit payments, which arose from differences in termination and retirement activity and mortality versus expectations.

(2) *Discount Rate*

The discount rate used to measure the total pension liability was 3.87% as of June 30, 2018. This rate represents the municipal bond return as chosen by the Commonwealth. The source is the Bond Buyer General Obligation 20-Bond Municipal Bond Index, which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

The Authority's Proportionate Share of Total Pension Liability of ERS

The Authority's proportionate percentage share of the total pension liability increased to 6.831%, which represented a share of the total pension liability of $1.67 billion.

The Authority's proportion of ERS's total pension liability was based on the ratio of the Authority's actual benefit payments to the aggregate total of benefit payments paid by all participating entities during the year ending on the measurement date.

The following presents the total pension liability as of June 30, 2018, calculated using the discount rate of 3.87%, as well as what the total pension liability would be if it was calculated using a discount rate that is 1 percent-point level lower (2.87%) or 1 percent-point higher (4.87%) than the current rate (in thousands):

	1% Decrease (2.87%)	Current Discount Rate (3.87%)	1% Increase (4.87%)
Total pension liability	$ 1,903,607	$ 1,672,879	$ 1,485,642

Detailed information about the ERS's fiduciary net position is available in its Annual Financial Report which can be found on the ERS's website at www.retiro.pr.gov

Pension Expenses and Deferred Outflow/Inflows of Resources Related to Pension

For the fiscal year ended June 30, 2018, the Authority pension expense as set forth in the actuarial report was $106.4 million. As a result of implementing GASB Statement No. 73, the Authority's pension expense for the fiscal year ended June 30, 2019, as set forth in the actuarial report was ($56.4) million and the impact of the transition from GASB Statement No. 68 to GASB Statement No. 73, amounting to $548.2 million, was recorded during fiscal year 2019 within operating expense in the accompanying Statement of Revenues, Expenses and Changes in Net Position.

As of June 30, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to pension from the following sources (expressed in thousands):

Deferred outflows of resources	Beginning of year balance under GASB Statement No. 68	Effect of Change from GASB Statements No. 68 to 73	Additions under GASB Statement No. 73	Deductions under GASB Statement No. 73	End of year balance under GASB Statement No. 73
Difference between actual and expected experience	$ 951	$ (951)	$ -	$ -	$ -
Changes in assumptions	183,970	(183,970)	4,020	-	4,020
Changes in proportion	25,110	(25,110)	-	-	-
Employer contributions subsequent to the measurement	92,674	-	89,429	(92,674)	89,429
	$ 302,705	$ (210,031)	$ 93,449	$ (92,674)	$ 93,449

Deferred inflows of resources	Beginning of year balance	Effect of Change from GASB Statements No. 68 to 73	Additions under GASB Statement No. 73	Deductions under GASB Statement No. 73	End of year balance under GASB Statement No. 73
Difference between actual and expected experience	$ 24,906	$ (24,906)	$ 50,597	$ -	$ 50,597
Changes in assumptions	143,228	(143,228)	54,857	-	54,857
investment earnings on pension plan investments	8,220	(8,220)	-	-	-
	$ 176,354	$ (176,354)	$ 105,454	$ -	$ 105,454

Amounts reported as deferred inflows of resources from pension activities at June 30, 2019 will be recognized in the pension expense as follows (in thousands):

Year Ending June 30,	Amount
2019	$ 21,091
2020	21,091
2021	21,091
2022	21,091
2023	21,090
	$ 105,454

The previous amounts do not include employer specific deferred outflows and deferred inflows of resources related to changes in proportion; therefore, the deferred outflows of $4 million related to changes in proportion have not been included in the table above.

Deferred outflows of resources related to pension benefit payments made by the Authority subsequent to the measurement date, which amounted to $89.4 million as of June 30, 2019, will be recognized as a reduction of the total pension liability in the fiscal year ended June 30, 2020. This amount is also not included in the table above.

(15) Other Postemployment Benefits

Authority Health Plan Benefit

The Authority provides retirement healthcare benefits under the Healthcare Benefit Plan to Retirees (“the Healthcare Plan”) pursuant to collective bargain agreements. The Plan is administered by the Authority. The benefit consists of a fixed maximum monthly payment (annuity) to cover medical expenses. Based on the Healthcare Plan’s features and functionality, and for the purpose of the actuarial valuation, it has been identified as a single-employer defined benefit healthcare plan. Participant groups covered are employees under the Collective Labor Agreement with “Unión Independiente Auténtica” (“UIA”), employees under the Collective Labor Agreement with “Hermandad Independiente de Empleados Profesionales de la Autoridad de Acueductos y Alcantarillados” (“HIEPAAA”) and employees under the Managers’ Regulation, all of which are Authority’s employees. All employees with more than twenty (20) years of rendered service within the Authority are eligible for the healthcare benefit upon retirement age. Act No.3 of April 4, 2013, an amendment to Act No. 447, established a new retirement age.

Retirement age is as follows:

► For those employees employed by the Authority before March 30, 1990, normal retirement age will be at sixty-one (61) years old.

► For employees employed by the Authority on or after March 30, 1990 and before July 1, 2013, normal retirement age will be at sixty-five (65) years old.

► For the employees hired by the Authority after July 1, 2013, normal retirement age will be at sixty-seven (67) years old.

The obligation ends in case of death before retirement and in case of total or permanent disability before retirement. The obligation also ends in case of death after retirement.

Funding Policy

The contribution requirements of the Authority are established and may be amended, by the Authority's Governing Board. The benefits are paid directly by the Authority to the retirees at a rate of a maximum of $125 per month per retiree. The Healthcare Plan is financed on a pay-as-you-go basis and the amount contributed during the fiscal year ended June 30, 2019 and 2018 was approximately $3.1 and $3.0 million, respectively. There is no contribution requirement for plan members.

Annual OPEB costs and Total OPEB liability

The Annual Pension Cost ("APC") and the Annual Required Contribution ("ARC") were computed as part of an actuarial valuation performed as of June 30, 2019, in accordance with parameters of GASB Statement No. 75 and based on current years' demographic data.

In fiscal year 2018, an expected OPEB liability was determined as of June 30, 2018 using standard roll forwards techniques (beginning with the actual OPEB liability as of the prior measurement date, June 30, 2017).

The following table illustrates the Total OPEB Liability as of June 30, 2019 and 2018 based on the latest actuarial report (in thousands):

	2019	2018
OPEB liability		
Retired participants and beneficiaries receiving payments	$ 38,692	$ 36,667
Active participants	36,735	36,003
Total	75,427	72,670
Plan fiduciary net position	-	-
Net OPEB liability	$ 75,427	$ 72,670
Plan fiduciary net position as a percentage of the Total OPEB liability	0%	0%
Deferred outflows of resources for contributions made after measurement date	-	-

The following table illustrates the OPEB costs components for the years ended June 30, 2019 and 2018 (in thousands):

	2019	2018
OPEB expense:		
Service cost	$ 1,451	$ 1,842
Interest cost	2,831	2,134
Amortization change (gain)/loss:		
Liability loss	231	358
Assumption change	(49)	(409)
Total expense	$ 4,464	$ 3,925

OPEB deferred outflows of resources and deferred inflows of resources

The implementation of GASB Statement No. 75 required to determine deferred outflows of resources and deferred inflows of resources in order to be amortized and recognized in the annual OPEB expense.

The following table illustrates the OPEB deferred outflows of resources and deferred inflows of resources under GASB Statement No. 75 for the year ended June 30, 2019 (in thousands):

	2019		2018	
	Deferred outflows of resources	Deferred inflows of resources	Deferred outflows of resources	Deferred inflows of resources
Difference between actual and expected experience	$ 6,099	$ 2,189	$ 6,457	$ -
Assumption changes	6,326	6,975	-	7,385
Total	$ 12,425	$ 9,164	$ 6,457	$ 7,385

The following table illustrates the list of amortizations for the OPEB deferred outflows of resources and deferred inflows of resources under GASB Statement No. 75 for the year ended June 30, 2019 (in thousands):

Date Established	Type of Base	Years Original	Years Remaining	Balance Original	Balance Remaining	Annual Payment
6/30/2018	Liability (Gain)/Loss	18.28	17.28	$(2,315.7)	$(2,189.0)	$(126.7)
6/30/2018	Assumptions	18.28	17.28	$3,861.9	$3,650.6	$211.3
6/30/2017	Assumptions	20.03	18.03	$371.5	$2,675.6	$148.4
6/30/2016	Liability (Gain)/Loss	20.03	17.03	$7,173.3	$6,098.9	$358.1
6/30/2016	Assumptions	20.03	17.03	$(8,204.1)	$(6,975.3)	$(409.6)
	Total Charges				$3,260.8	$181.5

OPEB deferred outflows of resources and deferred inflows of resources to be registered in the OPEB expenses are as follows (in thousands):

Year Ending June 30,	Amount
2020	$ 181.5
2021	181.5
2022	181.5
2023	181.5
2024	181.5
Total thereafter	2,353.3
	$ 3,260.8

Actuarial Cost Method

The actuarial cost method used by the Authority is the Projected Unit Credit (Attribution from date of hire to expected retirement ages).

Actuarial Assumptions

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the ARC of the employer are subject to continuous revision as actual results are compared with past expectations and new estimates are made about the future.

Economic Assumptions

The discount rates considered for years ended June 30, 2019 and 2018 were 3.5% and 3.9%, respectively. In order to comply with GASB No.75, 20-year Municipal Bond Rate term investments (Bond Buyer US weekly yields 20 General Obligation Bond Index) were used to represent the Authority's expected long-term return on internal assets used to finance the payment of plan benefits.

As the retirement healthcare benefit is fixed, such that it will not increase the obligation under the plan (regardless of the claim experience) without negotiation of a new contract with the unions or an express Governing Board approval, the medical increase rate was zero percent for the years ended June 30, 2019 and 2018. If the fixed benefit level does indeed increase sometime in the future (by negotiation or plan amendment), the higher obligation will be recognized when the new contract or amendment is adopted.

Demographic Assumptions

For the years ended June 30, 2019 and 2018, the turnover table used for the valuation was the Standard Hewitt Withdrawal Table for Hourly Union Employees – five (5) years of service select period.

The RP-2014 with Scale MP2020 was used for the valuation of the benefit granted by the plan.

The Hunter disability table was used for the valuation.

Sensitivity of the Total OPEB Liability to Changes in Discount Rate

The following presents the total OPEB liability calculated using the discount rate of 3.5%, as well as what it would be if it were calculated using a discount rate of 1 percent lower or 1 percent higher than the current rate (dollars in thousands):

	1% Decrease (2.5%)	Current Discount Rate (3.5%)	1% Increase (4.50%)
Total OPEB Liability - June 30, 2019	$ 86,558	$ 75,427	$ 66,310

ERS Medical Insurance Plan Contribution (ERS MIPC)

The Authority also participates in the OPEB plan of the Commonwealth for retired employees, through the ERS MIPC, in accordance with local law. The ERS MIPC is administered on a pay-as-you-go basis.

ERS MIPC is an unfunded single employer defined benefit OPEB sponsored by the Commonwealth. This OPEB Plan was created under Act No. 95-1963. Healthcare benefits are provided through insurance companies whose premiums are paid by the retiree with the Commonwealth providing a matching share. ERS MIPC covers substantially all full-time employees of the Commonwealth, certain municipalities and component units of the Commonwealth, such as the Authority, not having their own post-employment benefit plans or in addition to their own post-employment plans some component units may have under special collective bargain agreements. For ERS MIPC, Commonwealth and Authority's employees became plan members upon their date of employment. Plan members were eligible for benefits upon reaching the applicable pension benefits retirement age.

The ERS MIPC covers a payment of up to $100 per month to the eligible medical insurance plan selected by each member. The ERS MIPC is financed by the Commonwealth through legislative appropriations. However, the Commonwealth claims reimbursements from each employer on a monthly basis for the corresponding amount of the OPEB payments made by the Commonwealth in relation to the retirees associated with each employer. The legislative appropriations are considered estimates of the payments to be made by the ERS MIPC. There is no contribution requirement from the plan members during active employment. The retirees contribute the amount of the healthcare insurance premium not covered by the Commonwealth contribution.

Actuarial Methods and Assumptions

The total OPEB liability as of June 30, 2019 and 2018 was determined by the actuarial valuation as of July 1, 2017 and 2016, respectively, which was rolled forward to June 30, 2018 and 2017, respectively (measurement dates) and assumed no liability gains or losses.

The actuarial cost method used by the ERS is the Entry Age Normal method.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Calculations are based on the types of benefits provided under the terms of the substantive plan at the time of each valuation and the pattern of sharing costs between the employer and plan member at the time of each valuation. The projections of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

Actuarial assumptions are revised periodically to more closely reflect actual, as well as anticipated future experience. Due to the change in the census collection date to the beginning of the fiscal year, rather than the end of the fiscal year, demographic gain/loss during the year is limited to the difference between actual and expected benefit payments, which arise from differences in termination and retirement activity and mortality versus expectations.

The discount rate considered for years ended June 30, 2018 and 2017 was 3.87% and 3.58% respectively. The discount rate was based on the Bond Buyer General Obligation 20-Bond Municipal Index.

The retirement healthcare benefit is fixed, such that it will not increase the obligation under the plan (regardless of the claim experience). The medical increase rate was zero percent for the years ended June 30, 2019 and 2018.

The Authority's Proportionate Share of Total OPEB Liability of ERS MIPC

The Authority's proportionate percentage share of the total pension liability amounts to 5.45638% (5.424269% in 2018), which represented a share of the total OPEB liability of $45.9 million.

As the ERS MIPC is a single employer plan and the benefits are not funded by an OPEB trust, GASB Statement No. 75 applies to the OPEB provided to each participating employer's own employees. The Central Government and its component units are considered to be one employer. Other employers also participate in the ERS OPEB plan. Because certain employers that are componment units of the Commonwealth, such as the Authority, prepare individual financial statements, a proportionate share or OPEB expense is determined for these employers. GASB Statement No. 75 requires that such proportionate share should be consistent with the manner in which amounts that are paid as benefits come due are determined. The proportionate share as of each measurement date is based on the ratio of each agency and component unit's actual benefit payments to the total actual benefit payments paid during the year ending on the measurement date.

The following table illustrates the total OPEB Liability under GASB Statement No. 75 for the year ended June 30, 2019, as informed by the ERS to the Authority (in thousands):

Description	Amount
OPEB Liability as of June 30, 2017	$ 48,260
Outflow of resources as of June 30, 2018	-
Inflow of resources as of June 30, 2018	-
OPEB Expense (credit)	(459)
Actual payments fiscal year 2018	(3,817)
Amortization of changes in proportion	1,967
OPEB Liability as of June 30, 2018 (measurement date)	$ 45,951

The following presents the total OPEB liability as of June 30, 2018, calculated using the discount rate of 3.87%, as well as what the total OPEB liability would be if it was calculated using a discount rate that is 1 percent-point level lower (2.87%) or 1 percent-point higher (4.87%) than the current rate (in thousands):

	1% Decrease (2.87%)	Current Discount Rate (3.87%)	1% Increase (4.87%)
Total OPEB liability	$ 50,399	$ 45,951	$ 42,174

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources from OPEB Activities

OPEB expense recognized by the Authority for the year ended June 30, 2019, related to ERS MIPC amounted to $1.5 million.

Because all participants in the ERS MIPC are inactive, there are no deferred inflows and outflows as any changes due to changes in actuarial assumptions or economic or demographic gains and losses are recognized immediately during the measurement year. However, a deferred outflow has been recognized only for the amount of the benefit payments made by the Authority subsequent to the measurement date, which amounted to $3.7 million during fiscal year 2019, which will be recognized as a reduction of the total OPEB liability in the year ended June 30, 2020.

Additional information on ERS is provided in its standalone financial statements for the year ended June 30, 2017, a copy of which can be obtained from the Employees' Retirement System of the Commonwealth of Puerto Rico, P.O. Box 42004, San Juan PR 00940-2004.

(16) Financial Covenants

The amended and restated MAT governing the Authority's Revenue Bonds contains, financial covenants requiring the maintenance of certain debt service coverage ratios.

As stated in the MAT, the Authority has covenanted to establish and collect rates, fees and charges so that it meets the following four independent requirements:

- Operating Revenues (as defined per the MAT) shall be at least equal to 250% of annual debt service with respect to Senior Indebtedness for the current fiscal year;
- Operating Revenues shall be at least equal to 200% of annual debt service with respect to Senior Indebtedness and Senior Subordinate Indebtedness for the current fiscal year;
- Operating Revenues shall be at least equal to 150% of annual debt service with respect to all Bonds and Other System Indebtedness for the current fiscal year; and
- Authority Revenues (as defined per the MAT), shall be sufficient to pay current expenses, annual debt service on its indebtedness and to fund other amounts and deposits required by the MAT.

Indebtedness, as defined in the MAT, includes Commonwealth Guaranteed Indebtedness and Commonwealth Supported Obligations.

As of June 30, 2018, the Authority rate covenant on all obligations was 0.92, as a result of lower revenues and increased costs experienced by the impact in the Authority's system of the 2017 Hurricanes. In accordance with the requirements of Section 7.01 of the MAT, the Authority submitted the rate covenant calculation to the Consulting Engineer after the fiscal year 2018 audited financial statements were issued. On March 23, 2021, the Consulting Engineer issued its "FY2018 Rate Covenant Compliance Review and Recommendations" stating that the Authority's inability to satisfy the All Obligations Rate Covenant in FY2018 was materially influenced by the 2017 Hurricanes, events that resulted in unique challenges to the Authority's operations and revenues and ultimately affected the Authority's ability to meet all the elements of the Rate Covenant set forth in the MAT. In its recommendations, the Consulting Engineer, although recognizing that many of the challenges affecting the Authority's ability to maintain compliance with the Rate Covenant during fiscal year 2018 were the result of extraordinary events, recommended some proactive actions that the Authority could take going forward to enhance Rate Covenant compliance such as (i) budgeting Authority Revenues above the minimum required 100% of all Indebtedness and establishing a margin above the Rate Covenant to absorb negative financial effects associated with unexpected events, (ii) continuing annual rate increases, and (iii) continuing to pursue revenue enhancing and cost saving initiatives as included in the Authority's fiscal plans. During fiscal year 2019 the Authority collected billings from fiscal year 2018, affected by the 2017 Hurricanes, and as a result the rate covenant on all obligations was 1.21.

(17) Capital and Other Contributions

Capital and Other contributions for the fiscal year ended June 30, 2019 and 2018 were as follows (in thousands):

	2019	2018
Developer contributions	$ 2,682	$ 3,394
Contributions from governmental agencies and municipalities	3,434	2,736
Other contributions	1,350	894
	7,466	7,024
Federal grants refunds--		
Federal Emergency Management Agency	70,424	97,480
	$ 77,890	$ 104,504

(18) Related Party Transactions

Operating revenues for services provided to the Commonwealth and its component units amounted to approximately $103.0 million and $125.6 million during the years ended June 30, 2019 and 2018, respectively. The Authority's government account receivable for water and sewer services for fiscal year 2018 was $134.9 million. As of June 30, 2019, there was no outstanding account receivables from Central Government Account. Further, operating expenses during the fiscal years ended June 30, 2019 and 2018 were approximately $114.5 million and $104.5 million, respectively, for charges from Puerto Rico Electric Power Authority (PREPA), a component unit of the Commonwealth.

As of June 30, 2019, and 2018, the Authority had approximately $7.1 million of receivables, from the Commonwealth and its component units, which are fully reserved. Such receivable is reported as accounts receivable net in the accompanying balance sheets.

The Authority had approximately $4.2 million and $10.5 million of excess of collections over billings from the Commonwealth, recorded as unearned revenue in the accompanying balance sheet as of June 30, 2019 and 2018, respectively.

As of June 30, 2019 and 2018, the Authority's accounts payable with the Puerto Rico Electric Power Authority (PREPA) and the ERS was $24.0 million and $158.4 million, respectively. The 2018 accounts payable balance with these related parties was affected by the 2017 Hurricanes impact in the Authority's liquidity.

Over the years, GDB, as fiscal agent and bank of the Commonwealth, had extended lines of credit and term loans to the Authority in order to finance capital improvement projects and operational needs. As of June 30, 2019 and 2018, the Authority had a term loan with an outstanding principal balance of approximately $65.6 million and $57.7 million, respectively, under this credit facility. The Authority has not made the quarterly principal and interest payments on this term loan since December 2015. On March 23, 2018, GDB ceased its operations and wound down in an orderly manner under Title VI of PROMESA. Pursuant to the terms of the Settlement Agreement, the Loan Agreement was terminated on November 20, 2020 and the Authority has no further obligation under it. For more information, please refer to Note 13.

(19) Prior Period Restatement

During fiscal year 2019, the Authority identified adjustments to (i) its accumulated depreciation, based on a review and correction of the depreciation computation for certain assets resulting from a change in estimated of useful lives during fiscal year 2011 and (ii) its OPEB liability a to recognize the liability attributed to the health plan benefit provided by the ERS MIPC under GASB Statement No. 75 which had not been previous recognized. The corresponding effect in the 2018 deferred outflow, related to other post-employment benefits was adjusted in the 2019 change in net position.

The following tables summarizes the restatements to the net position at the beginning of the year, as originally reported by the Authority (in thousands):

			2017 Net Position			
	Depreciation expense	Accumulated depreciation and amortization	Net investment in capital assets	Restricted for enviromental compliance, capital activity and other	Unrestricted	Total Net Position
June 30, 2017, as originally reported	$ 285,228	$ (4,345,624)	$ 2,195,602	$ 79,606	$ (1,646,845)	$ 628,363
Adjustment on accumulated depreciation - correction cummulative effect	(40,466)	(342,569)	(342,569)	-	-	(342,569)
June 30, 2017, as restated	$ 244,762	$ (4,688,193)	$ 1,853,033	$ 79,606	$ (1,646,845)	$ 285,794

				2018 Net Position			
	Depreciation expense	Accumulated depreciation and amortization	OPEB Liability GASB Statement No. 75	Net investment in capital assets	Restricted for enviromental compliance, capital activity and other	Unrestricted	Total Net Position
June 30, 2018, as originally reported	$ 272,513	$ (4,614,248)	$ 75,524	$ 1,702,037	$ 122,818	$ (1,504,870)	$ 319,985
Adjustment on accumulated depreciation - correction cummulative effect	(15,755)	(286,348)	-	(286,348)	-	-	(286,348)
Adjustment GASB 75 - cummulative effect of implementation for ERS OPEB	-	-	48,260	-	-	(48,260)	(48,260)
June 30, 2018, as restated	$ 256,758	$ (4,900,596)	$ 123,784	$ 1,415,689	$ 122,818	$ (1,553,130)	$ (14,623)

(20) Labor Union Contracts

The Authority’s employees are represented by two labor unions, the Independent Authentic Union (“UIA” by its Spanish acronym) and the Hermandad Independiente de Empleados Profesionales de la Autoridad de Acueductos y Alcantarillados (“HIEPAAA”).

As of June 30, 2019, 2,923 employees were under the UIA union and 123 under HIEPAAA union. The remaining Authority employees consist of (i) 1,058 management employees, (ii) 162 appointed employees and (iii) 327 employees under the pre-retirement program established by Act 211-2015 not rendering services to the Authority. The pre-retirement program provides government agencies and municipalities in Puerto Rico, such as the Authority, with a mechanism to help them generate savings in employee costs (payroll and fringe benefits), as well as to afford employees who enrolled in the ERS prior to April 1, 1990, the opportunity to receive certain benefits until they reach the optional retirement age, which for most people is 61 years.

During 2012, the Authority entered into new Collective Bargaining Agreements (each a "CBA" and together, the "CBAs") with UIA and HIEPAAA. The termination dates of these CBAs were December 31, 2015, and June 30, 2016, respectively. Several laws have been enacted or amended since 2014 affecting the Authority's labor relations. These laws currently have supremacy over any other law or agreement regarding employment matters.

On June 17, 2014, Act 66-2014, known as the "Fiscal Sustainability Act" was passed, declaring an island-wide state of emergency and implementing special fiscal and operational measures to allow the government and its instrumentalities more flexibility to achieve budgetary balance and phase out the financing of budget deficits. Chapters II and III of Act 66-2014 were in effect until July 1, 2017. Under Act 66-2014 both collective agreements effective terms were extended until December 31, 2017. However, on January 23, 2017, under Act 3-2017 known as the "Law to Address the Economic, Fiscal and Budgetary Crisis to Guarantee the Operation of the Government of Puerto Rico", both collective agreements effective terms were extended until June 30, 2021 for non-economic clauses and clauses not effected by the Act 3-2017. Economic clauses and non-economic clauses with economic impact are suspended during the Act 3-2017 applicability.

After the expiration of Act 3-2017, those unions that represented employees as of July 1, 2014, may begin negotiating new CBAs. Government entities are required to negotiate based on the legal framework applicable during the negotiations and consider, primarily, the fiscal and economic situation of the entity and of the government in general.

(21) Commitments and Contingencies

Environmental Matters

Facilities and operations of the Authority's water and sewer systems are subject to regulations under Federal and Commonwealth environmental laws. The Authority is subject to two (2) court approved agreements to enforce compliance with such environmental laws, one with the PRDOH related to violations of the Safe Drinking Water Act ("SDWA") and the other with the United States Government, acting on behalf of EPA, related to violations of the Clean Water Act ("CWA").

2006 Drinking Water Settlement Agreement.

Prior to December 2006, the Water System had been subject to approximately 180 administrative orders arising from enforcement actions by PRDOH for violations of the SDWA and to three administrative consent agreements with PRDOH addressing monitoring and turbidity violations. On December 2006, the Authority entered into, a comprehensive settlement agreement with PRDOH resolving litigation brought against the Authority seeking enforcement of the administrative orders of PRDOH under the SDWA and the violations by the Authority of two of the prior consent agreements (the "2006 Drinking Water Settlement Agreement"). The 2006 Drinking Water Settlement Agreement which was filed on December 15, 2006 with the Court of First Instance, Superior Court of San Juan in Civil Action KPE 2006-0858, was approved on March 15, 2007, and subsequently amended on June 16, 2008, and continues in effect. The 2006 Drinking Water Settlement Agreement replaces and supersedes all prior PRDOH administrative orders and consent agreements.

The 2006 Drinking Water Settlement Agreement provides for remedial and compliance actions by the Authority in its water treatment plants in accordance with agreed-upon schedules and for the payment of stipulated penalties for non-compliance. It obligates the Authority to carry out approximately 210 long-term remedial measures over a 15-year period along with many other shorter-term remedial actions that will involve both capital expenditures and expenditures for operating, maintenance and training programs and evaluations and studies centered on ensuring that the quality of drinking water provided by the Authority to its customers meets all federal and Commonwealth regulatory standards. Additionally, the Authority paid a $1 million civil penalty to the Commonwealth and is required to pay stipulated penalties for violations of the agreement. Certain stipulated penalties paid by the Authority may be returned to the Authority under certain circumstances to be used to finance any action directed at achieving or maintaining compliance with the Authority's obligations under the 2006 Drinking Water Settlement Agreement and under local and federal laws applicable to the Water System. The Authority submits quarterly progress reports to the PRDOH to inform on its compliance with the terms of the 2006 Drinking Water Settlement Agreement and self-assesses any applicable stipulated penalties.

The 2006 Drinking Water Settlement Agreement requires the implementation of remedial measures of the water treatment systems classified as short, mid and long-term remedial measures. As of June 30, 2019, the Authority had completed all short-term and mid-term remedial measures related to the water treatment plants, made up of 540 short-term and 115 mid-term remedial measures.

The long-term remedial measures are divided into three terms: Term 1 measures were to be completed by December 31, 2011, Term 2 measures were to be completed by December 31, 2016, and Term 3 measures are to be completed by December 31, 2021. All long-term remedial measures under Term 1 have been completed. Term 2 measures have a total of 18 projects, of which 13 have already been completed. Regarding the remaining five remedial measures, the Authority and PRDOH filed a joint motion to move three projects to Term 3 category and to have the other two eliminated, which motion was granted by the court. Term 3 measures initially comprised a total of 13 projects, converted to 16 with the inclusion of the three projects moved from Term 2. Of these 16 projects, eight have been completed. The time frame for the completion of the remaining eight projects is December 31, 2021, but the Authority expects to negotiate with PRDOH an amendment to the 2006 Drinking Water Settlement Agreement to provide for revised project completion time frames consistent with agreements reached with EPA under the 2015 EPA Consent Decree, which revised time frames will provide for more flexibility to complete these projects based on a project prioritization system approved by EPA. Please refer to Note 22 for more detail.

Before the 2017 Hurricanes, the Authority had been in substantial compliance with the capital improvement project deadlines of the 2006 Drinking Water Settlement Agreement. After these Hurricanes, the Authority submitted a notification to PRDOH invoking the force majeure provisions of the 2006 Drinking Water Act Settlement Agreement and indicating the possibility of some delays in projects and program due dates.

During the past year, the Authority has been required to pay stipulated penalties under the 2006 Drinking Water Settlement Agreement related to compliance issues in respect of primary standards (and mostly related to DBPs), which amounted to approximately $14,500 per quarter. The Authority has also been required to pay stipulated penalties because of certain missing or late deliverables, remedial measures and mitigation measures.

As part of the Agreement, the Authority paid stipulated penalties during fiscal years 2019 and 2018 of $726,600 and $214,900, respectively. Stipulated penalties were paid by the Authority for failing to comply with remedial measures deadlines and parameters exceedances. The Authority deposited $111,200 for fiscal year 2019 and $131,950 for fiscal year 2018 in an escrow account for parameters exceedances. The escrow account is to be used for compliance projects with the approval of the PRDOH.

To the date of the issuance of this financial statement, as mentioned above, the Authority has substantially complied with the capital improvement project deadlines under the 2006 Drinking Water Settlement Agreement. The Authority anticipates, however, that it may have difficulties meeting future deadlines unless the PRDOH approves the prioritization system under that Settlement Agreement.

EPA Consent Decree

On September 15, 2015, the Department of Justice ("DOJ"), acting at the request of the Administrator of EPA, filed a complaint (the "Complaint") against the Authority and the Government of Puerto Rico, as a required party (pursuant to Section 309(e)), in the United States District Court for the District of Puerto Rico (the "District Court"). The Complaint sought injunctive relief and the assessment of civil penalties against the Authority for alleged violations of the Clean Water Act ("CWA"). Specifically, the Complaint alleges the Authority violated Section 301(a) of the CWA, by discharging pollutants, and/or failing to comply with the terms of the National Pollutant Discharge Elimination System ("NPDES") permits issued to the Authority facilities under Section 402 of the CWA, as well as failing to report unauthorized discharges required under such permits, and failing to meet operation and maintenance requirements for certain water treatment plants and wastewater treatment plants.

Concurrently with the filing of the Complaint, DOJ filed on September 15, 2015 a Consent Decree executed among the EPA, Authority and Government of Puerto Rico settling the matters addressed in the Complaint, under the terms agreed upon by the Authority, DOJ and EPA. The EPA Consent Decree is the result of an extensive negotiation process aimed, among other things, at resolving the claims addressed in the Complaint and the requirements of previous consent decrees related to the allegations included in the Complaint, specifically with the goal of implementing a system-wide NPDES permit compliance plan, continuing the implementation of operational and maintenance plans in all of the Authority's facilities, implementing remedial measures to address discharges and the alleged violations to the CWA occurring within the Authority's wastewater collection system of the Puerto Nuevo Wastewater Treatment Plant ("WWTP") in the Municipality of San Juan. On May 23, 2016, the District Court entered judgement approving the consolidated EPA Consent Decree. The Complaint was dismissed with prejudice and civil case number 15-2283 was closed. Before the 2017 Hurricanes, the Authority had been in substantial compliance with the capital improvement and program deadlines of the 2015 EPA Consent Decree. In the aftermath of the 2017 Hurricanes, the Authority submitted a notification to EPA invoking the *force majeure* provisions of the 2015 EPA Consent Decree and indicating the possibility of some delays in projects and program due dates. In June 2018, the Authority requested time extensions for a period to be determined for certain obligations and stipulated penalties due under the 2015 EPA Consent Decree with the corresponding justifications due to lack of funding to reactivate the CIP, the ongoing debt renegotiation process and the impact of the 2017 Hurricanes. The Authority, DOJ and EPA are currently negotiating, among other things, a proposed amendment to the 2015 EPA Consent Decree to revise the compliance deadlines relating to certain programs and projects under the 2015 EPA Consent Decree. Although the Authority believes that the *force majeure* provision and its consequential stay of obligations and stipulated penalties under the 2015 EPA Consent Decree should be in effect until the proposed amendment is approved, the Authority's liability through the execution of the proposed amendment is part of the current negotiations with EPA and DOJ.

Negotiations leading to the execution of the EPA Consent Decree were commenced by the Authority in order to mitigate and consolidate in one consent decree the high CIP costs mandated by existing consent decrees. Despite being in material compliance with the capital improvement project requirements of the existing consent decrees, the Authority began discussions with DOJ, on behalf of EPA, EPA and PRDOH seeking that a CIP prioritization system be recognized in order to, among other things: (i) reduce required annual project expenditures and extend compliance deadlines, (ii) incorporate other regulatory projects included in the Authority's CIP not currently covered by a consent decree, and (iii) include the operation, maintenance and capital improvement program requirements related to the wastewater collection system of the Puerto Nuevo WWTP, including alleged combined sewer overflows. Please refer to Note 22 for more detail.

Prior to the *force majeure* clause entering into effect as described above, the Authority had been required to pay stipulated penalties for noncompliance with certain interim and final effluent limitations pursuant to the 2015 EPA Consent Decree, which penalties for the quarter ended August 31, 2017, totaled $84,300. Since *the force* *majeure* clause entered into effect, however, the payment of stipulated penalties has not been required due to the resulting stay of this and other obligations under the 2015 EPA Consent Decree. Once this stay ends, the Authority anticipates that it will be required to pay stipulated penalties for noncompliance with certain interim and final effluent limitations similar to the amounts previously paid. The Authority may also be required to pay stipulated penalties for failure to meet deadlines for required programs and projects under the 2015 Consent Decree, unless these deadlines are revised, as recommended by the Authority in the proposed amendment to the 2015 EPA Consent Decree that the Authority is currently negotiating with EPA and DOJ as discussed above.

Risk Management

The Authority has commercial insurance to mitigate its exposure to certain losses involving real and personal property (including windstorm, flood and earthquake damages) and comprehensive general and automobile claims. Each commercial insurance policy maintained by the Authority contains specific policy limits and deductibles.

A summary of the commercial insurance maintained by the Authority for the period commencing on April 01, 2018 and ending on April 1, 2019 was as follows:

Real and Personal Property

Coverage	Limit	Deductible
Total Insurable Value	$300 million	As stated below
Property – All Other Perils (AOP) (including Data Processing, In Transit and equipment breakdown)	$150 million per occurrence, All Risks of Direct physical Loss or damage Insurance including Business interruption and Extra Expense, excess of applicable deductibles.	$100 million Each and every occurrence combined for Property Damage and Business Interruption, including Windstorm, Flood, Earthquake and Boiler & Machinery
Windstorm	Included in $150 million property coverage.	$100 million Each and every occurrence combined for Property Damage and Business Interruption, including Windstorm, Flood, Earthquake and Boiler & Machinery
Earthquake (EQ)	$150 million Combined Single Limit for Property Damage and Business Interruption each and every occurrence, excess of applicable deductibles and excluding wind driven water.	$100 million Each and every occurrence combined for Property Damage and Business Interruption, including Windstorm, Flood, Earthquake and Boiler & Machinery
Flood	$150 million Combined Single Limit for Property Damage and Business	$100 million Each and every occurrence combined for Property Damage and Business Interruption,

Coverage	Limit	Deductible
	Interruption each and very occurrence, excess of applicable deductibles and excluding wind driven water.	including Windstorm, Flood, Earthquake and Boiler & Machinery
Business Interruption	Included in $150 million property for AOP.	$100 million Each and every occurrence combined for Property Damage and Business Interruption, including Windstorm, Flood, Earthquake and Boiler & Machinery
Extra Expense	Included in $150 million property for AOP, subject to a $35 million Sublimit	$100 million Each and every occurrence combined for Property Damage and Business Interruption, including Windstorm, Flood, Earthquake and Boiler & Machinery
Contingent Business Interruption	Included in $150 million property for AOP, subject to a $35 million Sublimit	$100 million Each and every occurrence combined for Property Damage and Business Interruption, including Windstorm, Flood, Earthquake and Boiler & Machinery
Professional Services Fees	Included in $150 million property for AOP, subject to a $2 million Sublimit	$100 million Each and every occurrence combined for Property Damage and Business Interruption, including Windstorm, Flood, Earthquake and Boiler & Machinery
Newly Acquired Locations	Included in $150 million property for AOP.	$100 million Each and every occurrence combined for Property Damage and Business Interruption, including Windstorm, Flood, Earthquake and Boiler & Machinery
Boiler and Machinery	Included in $150 million property coverage	$100 million Each and every occurrence combined for Property Damage and Business Interruption, including Windstorm, Flood, Earthquake and Boiler & Machinery

During fiscal years 2018 and 2019 the Authority received the full insured amount for property damage and business interruption as a result under the Hurricane Maria claim, of $300 million.

The renewal of the real and personal property insurance policy starting on April 01, 2019 includes the same policy coverages and limits.

Liability

Coverage	Deductibles	Policy Limits
Comprehensive general liabilities	$100 thousand per occurrence	$1 million per occurrence $2 million per aggregate
Umbrella liability First excess general liability and automobile	Retention $1 million	In excess of $20 million up to $20 million
Second excess general liability and automobile	$0	From $20 million to $40 million
Pollution liability	$250 thousand per occurrence	$5 million per occurrence $10 million per aggregate
Crime	$10 thousand per occurrence	From $500 thousand up to $1 million $2.5 million aggregate
Accident and health divers	$ 0	$250 thousand per occurrence $1.7 million aggregate
EPLI	$100 thousand per occurrence	$5.0 million
Excess EPLI	$ 0	Additional $5.0 million

Owner Controlled Insurance Program

The Authority also has an Owner Controlled Insurance Program ("OCIP"). The OCIP is an insurance program under which Commercial General Liability, Excess General Liability, Builders Risk, and Contractors Pollution Liability coverages are procured or provided on a project "wrap-up" basis for contractors and subcontractors of any tier, who have been properly enrolled, while performing operations at the Project Site.

Each insurance policy maintained by the Authority contains specific policy limits and deductibles. A summary of the OCIP insurance policies maintained by the Authority is as follows:

Coverage	Deductible	Policy Limit
Comprehensive general liability:		
General liability	$10 thousand per occurrence	$2 million per occurrence, $4 million aggregate
First excess liability	$10 thousand per occurrence	$25 million per occurrence, $50 million aggregate
Second excess liability	$ 0	$25 million per occurrence, $50 million aggregate
Builder's risk	$20 thousand theft $100 thousand - atmospheric events	$100 million per occurrence
Contractor's pollution liability	$25 thousand per occurrence	$25 million per occurrence, $25 million aggregate
Professional liability	$250 thousand per occurrence	$25 million per occurrence, $50 million aggregate

Settled Liability and OCIP related claims resulting from these risks have not exceeded commercial insurance coverage during the fiscal years 2019 and 2018.

Operating Leases

Certain commercial offices and warehouse facilities of the Authority are leased under operating lease agreements. During the fiscal years ended June 30, 2019 and 2018, the Authority incurred approximately $3.1 million and $3.7 million, respectively, in rent expense.

Future minimum non-cancelable lease payments on existing operating leases as of June 30, 2019, which have an initial term of one year or more, were as follows (in thousands):

Year Ending June 30,	Amount
2020	$ 2,519
2021	2,347
2022	2,127
2023	1,925
2024	1,545
2025-2019	2,395
2030-2034	1,385
	$ 14,243

Litigation

The Authority is a defendant in various lawsuits arising in the normal course of its business, including employment, contract, construction, and miscellaneous environmental claims. In the opinion of the Authority and its General Counsel, the ultimate disposition of such existing proceedings is either covered by insurance or will not have a material adverse effect on the financial position or operations of the Authority. However, management, based on discussion and opinions from legal counsels, has accrued a liability to cover litigation claims and contingencies that are $89.9 million and $72.4 million as of June 30, 2019 and 2018, respectively, presented within accrued liabilities in the accompanying balance sheets.

(22) Subsequent events

Subsequent events were evaluated through October 13, 2021, the date the financial statements were available to be issued, to determine if such events should be recognized or disclosed in the fiscal year 2019 financial statements.

a) USDA and SRF Debt Modification

On July 26, 2019, the Authority and AAFAF consummated definitive agreements (the “Agreements”) restructuring the Authority’s debt obligations under the SRF Program and the USDA Rural Development, Rural Utilities Service program (“RD/RUS” and together with the EPA, the “Federal Parties”) totaling almost $1 billion (the “Federal Debt”).

The Agreements were approved by the Oversight Board pursuant to Section 207 of PROMESA. The Agreements include the termination of existing Commonwealth guarantees of the Federal Debt, thus reducing overall Government contingent liabilities by approximately $1 billion and the consolidation of all the restructured debt into two SRF loans and one RD loan with extended maturities and/or lower interest rates as follows:

- RD loans: 40-year term at 2% interest rate, with $10 million annual debt service from years 1 to 10 and $17 million annual debt service thereafter
- SRF loans: 30-year term at 0% interest rate and $10 million annual principal-only payment from years 1 to 10 and 1% interest rate and $27 million annual debt service thereafter.

The restructured Federal Debt was designated as Other System Indebtedness in parity with other senior debt under the Authority’s MAT and is not guaranteed by the Commonwealth.

b) 2019-2020 Seismic Activity

On January 7, 2020, Puerto Rico was struck by a 6.4 magnitude earthquake causing significant damage to infrastructure in the southwestern portion of the island, an island-wide power outage and water shortages. In order to safeguard the health and public safety of its citizens, the Governor issued executive orders EO 2020-01 and EO 2020-02 declaring a state of emergency, activating an emergency purchasing protocol allowing emergency management agencies to acquire the necessary supplies and essential services to provide a timely and effective response and activating the National Guard to provide support during the emergency. In addition, the Oversight Board authorized through January 31, 2020 the utilization of Emergency Reserve funds from fiscal years 2019 and 2020, as needed by the Government of Puerto Rico, without the Board’s prior approval of reapportionments. President Trump also approved an emergency declaration allowing direct federal assistance for emergency measures to protect lives, property and public health after the series of earthquakes.

According to a January 29, 2020 report published by the United States Geological Survey, Puerto Rico is at risk of many potentially catastrophic earthquakes in the near term, a prediction borne out on May 2, 2020, when a 5.4 magnitude earthquake struck Puerto Rico's southwestern coast.

The Authority estimates that its Systems in the affected area sustained damages of approximately $6.7 million, much of which is expected to be covered by insurance or be eligible for federal funding to offset the cost of the Authority of repairs.

c) COVID-19

On March 11, 2020, the World Health Organization declared the Coronavirus disease caused by a novel coronavirus ("COVID-19") a global pandemic. As a result of the health threat and to contain the COVID-19 spread across the island, the Governor issued executive order EO 2020-020, on March 12, 2020, declaring a state of emergency in Puerto Rico to concentrate all efforts and implement necessary measures to safeguard the health, well-being and public safety of the residents of Puerto Rico. The executive order authorizes the Secretary of the Department of Transportation and the Executive Director of the Office of Management and Budget of Puerto Rico to set up a special budget, from any available funds, including the Emergency Fund, to cover all necessary costs for the containment of the virus throughout the island and sharing information with the municipalities. The Governor has issued several extensions on the March order with various modifications to Puerto Rico's social distancing measures. The public emergency remains in effect as of the date of the issuance of these financial statements. On April 9, 2020, Act 39-2020 became effective, which has prevented the Authority from disconnecting residential customer's water services due to non-payment during the public emergency and for two months after it is ended.

The COVID-19 pandemic, associated mitigation policies, and the resulting economic impact have presented certain challenges for the Authority, including but not limited to reductions in collections, increase in operational expenses, shortage of supplies and interruption to contracted services, workforce issues and delayed in implementation of CIP. The Authority management has taken operational initiatives to support its liquidity, including promoting alternative payment options to improve collections, drawing down on previously collected insurance proceeds, and temporarily suspending deposits to its Capital Improvement Fund during the second half of fiscal year 2020 and 2021.

The Authority requested funds to provide premium pay to eligible essential employees working in person and performing services to provide an essential service (water treatment and distribution and wastewater collection and treatment) during the COVID-19 emergency. On September 15, 2021 the Authority received $7.5 million, representing $2,000 per employee for 3,767 qualifying employees.

d) Environmental Compliance

As a result of increased seismic activity in Puerto Rico in late 2019 and early 2020, as well as the recent COVID-19 pandemic, the Authority again invoked the Consent Decree and PRDOH Agreement force majeure clause. Although compliance with the capital improvement and program requirements was not affected, the Authority requested and obtained from both local and federal regulatory agencies extensions to deadlines for certain documentation and reporting requirements including Discharge Monitoring Reports (DMRs) and progress reports. As a result of structural damages at several facilities resulting from the recent seismic activities, the Authority has had to implement alternate liquid sludge disposal methods for sludge produced by affected wastewater treatment facilities, including landfill disposal.

Although the Authority is committed to bringing the Systems into material compliance with applicable law, the Authority will not be able to comply fully with all the requirements of the 2015 EPA Consent Decree and 2006 Drinking Water Settlement Agreement due to the impact of the 2017 Hurricanes, the 2020 Earthquakes and the COVID-19 pandemic on project execution timelines. The Authority invoked the force majeure clause under such agreements and is currently negotiating a proposed amendment to the 2015 EPA Consent Decree to revise the schedule for completion of required projects that have been delayed due to these events and to incorporate deadlines or time frames that the Authority anticipates it would be able to meet. In addition, as noted above, the Authority expects to negotiate with PRDOH an amendment to the 2006 Drinking Water Settlement Agreement to provide for revised project completion time frames consistent with agreements reached with EPA under the 2015 EPA Consent Decree and the prioritization system established under that 2015 EPA Consent Decree. In the meantime, the Authority expects that it will continue to pay stipulated penalties and to make additional capital expenditures (some not included in the CIP) in the future. To prepare for this potential liability, the Authority makes a risk assessment of the average exposure for payment of stipulated penalties under the 2015 EPA Consent Decree and 2006 Drinking Water Settlement Agreement and creates a reserve for the amounts it believes should be sufficient to pay the stipulated penalties at current levels.

e) 2020 Drought

In 2020, the Authority faced a new dry season where 50% of the Island went under moderate to severe drought conditions. A water rationing plan was implemented affecting around 140,000 clients served by the Carraízo system from July 2 to July 27, 2020. Additionally, around 23,000 clients served by the water treatment plants of Canóvanas, El Yunque, Jaguar and Guzmán Arriba were also under water rationing as a result of water levels at the water intakes at the rivers serving the plants. To minimize the impact of the drought and water rationing on its service, the Authority has started taking measures to manage pressures in the system, reduce water production and activate wells to protect and extend water sources availability since December 2019, based on the reservoir levels and its trends. Such actions helped the Authority to reduce the impact to the service, which combined with system interconnections allowed the Authority to avoid more drastic water rationing measures.

In early 2021, the Authority implemented similar measures and operational adjustments to the ones mentioned previously to maximize water availability. During 2021, portions of the island were experiencing either abnormally dry weather or moderate drought conditions, mostly in the south and northwest areas of Puerto Rico and the Authority managed its water supply to avoid water rationing to its clients.

f) 2021 Fiscal Plan

On May 27, 2021, the Oversight Board approved its latest 6-year fiscal plan for the Authority (the "PRASA Fiscal Plan") pursuant to PROMESA and the requirements imposed by the Oversight Board. The PRASA Fiscal Plan includes certain initiatives, such as, among others, rate increases, a Public Private Partnership project for improving commercial services, increases in government account collections, reductions in physical water losses, and new federal funding. For more detail on PRASA's financial projections and measures under implementation or to be implemented as required by the Oversight Board please refer to 2021 Fiscal Plan for the Authority published in the Oversight Board webpage.

g) Rate Adjustments

PRASA's current rate structure was adopted through the public hearing process of Act 21 of 2016 and approved by the Governing Board pursuant to Resolution No. 2794 on July 3, 2013 and as amended by Resolution No. 2825 dated December 18, 2013. PRASA's rate structure, set by its Governing Board, provides for an annual rate adjustment of up to 4.5% and not more than 25% through the application of an "Annual Adjustment Coefficient".

In 2017, the Oversight Board required the Authority to implement moderate, but consistent multi-year rate adjustments to ensure its costs are fully covered by service revenues. On August 1, 2017, the Authority's Governing Board approved, within the Annual Adjustment Coefficient parameters and authorization of the rate setting process of 2013, a moderate rate adjustment schedule for five years between fiscal year 2018 and fiscal year 2022 through Resolution 3042, of 2.5%, 2.8%, 3.5% and 4.5% for residential, commercial, industrial and government clients, respectively.

The scheduled rate adjustments for fiscal years 2018 through 2022 have been implemented as planned, with the fifth scheduled rate adjustment taking effect on July 1, 2021.

After the July 1, 2021 rate adjustment, for any additional rate increase by a cumulative effect of 25% or more, the Authority will be required to follow the Act No. 21 process. The Authority is currently reviewing its rate structure with the objective of simplifying it, incorporating feedback and recommendations from a third-party expert in utilities rates, and implementing the new rate structure starting in fiscal year 2023.

h) Voluntary Early Retirement Programs

In recent years, the Government of Puerto Rico has implemented several early retirement programs for government workers, including employees of the Authority. Most recently an early retirement incentive was passed by the Legislature of Puerto Rico on August 3, 2020 (Act 80-2020). Under this program, that became effective in August 2020, retiring employees' pension calculation is based on 50% of the average annual salary during the last three years, and they are entitled to receive $100 per month for their health plan cost until the age of 62 and the payment of the dollar value of their accrued sick leave and vacation leave. Positions that become vacant as a result of this retirement program will not be re-staffed unless approved by Puerto Rico's Office of Management and Budget or through transfer of other current public employees. The Authority has 1,131 eligible employees under Act 80-2020. An informal Authority survey indicated a total of 729 employees are willing to participate under the program. The Oversight Board has stated that Act 80-2020 is not consistent with the Government of Puerto Rico's fiscal plan, and its passage has not been approved by the Oversight Board.

i) 2020 Clean Water State Revolving Funds Loan

After the July 2019 successful debt restructuring of PRASA's outstanding loans under the Puerto Rico SRF Program, with the agreement of and in collaboration with the EPA, PRASA regained access to funds from the SRF Program. On August 18, 2020, PRASA entered into a loan agreement with the PRDNER and PRIFA for loans totaling up to $163 million to allow for funding of 28 wastewater capital improvement projects.

The executed loan agreement provides for a 30-year amortization after completion of the relevant projects, with a 1% interest rate. The loans were designated as Senior Indebtedness under PRASA's Master Trust Agreement.

j) Government Development Bank (GDB) – Debt Restructuring Act

GDB entered into a Restructuring Support Agreement under Title VI Process under PROMESA (Qualifying Modification), providing for a transaction resulting in the wind-down of GDB's operations. The GDB Title VI Plan provides for certain GDB creditors (primarily holders of GDB public bonds and deposit claims held by certain municipalities and certain municipal and non-public entities) to exchange their claims against GDB at a 45% discount for new bonds. On August 24, 2017, the Governor signed into law Act No. 109 – "GDB Debt Restructuring Act", which provides for the determination of liabilities between any government entity and GDB, by automatically applying the outstanding balance of any deposit of such entity against the outstanding balance of any loan of such entity with GDB, in a manner consistent with the Qualifying Modification - as described in Title VI of PROMESA.

PRASA's Note with GDB (refer to Note 13 for more details) was subsequently transferred to the GDB DRA upon consummation of the Qualifying Modification on November 29, 2018 (the "GDB-DRA Loan Agreement"). The Authority's obligation under the GDB-DRA Loan Agreement was subordinate in all respects to its outstanding Trust Agreement obligations. At the time of the transfer to GDB-DRA, the outstanding principal amount under the GDB-DRA Loan Agreement was $57.5 million, plus accrued and unpaid interest. On November 10, 2020, the Authority, AAFAF, GDB-DRA and the collateral monitor for GDB-DRA reached an agreement in principle, contingent on Oversight Board approval, to resolve and settle in full all Authority obligations under the GDB-DRA Loan Agreement by a one-time Authority payment in the amount of $20.5 million. On November 20, 2020, the Oversight Board approved the settlement, the Authority made that payment in full, the GDB-DRA Loan Agreement was terminated, and the Authority has no further obligation under it.

k) 2020 Debt Refunding

On December 17, 2020, the Authority issued its 2020 Series A and Series B Revenue Refunding Bonds (the "2020 Senior Bonds") in the amount of $1,351.3 million and $18.8 million, respectively, for the purpose of refunding a portion of the outstanding bonds of the Authority. The proceeds of the 2020 Senior Bonds were used to (i) refinance a portion of the currently outstanding 2008 Revenue Bonds, Series A, and Series B (Senior Lien) issued under the Trust Agreement, excluding the non-callable convertible capital appreciation, (ii) refinance all of the Authority's currently outstanding Revenue Refunding Bonds, 2008 Series A and 2008 Series B, each guaranteed by the Commonwealth of Puerto Rico, and (iii) pay costs of issuance of the 2020 Senior Bonds. The par amount of the refunded bonds amounted to $1,427.6 million.

The 2020 Senior Bonds bear coupons at rates ranging from 4% to 5% per annum with yields at the time of issuance ranging from 2.50% to 4.50% with maturity dates ranging from July 1, 2021 to July 1, 2047. The proceeds of the 2020 Senior Bonds totaling $1,471.1 million, including $101 million in premium, were used to (i) pay for $10.4 million in underwriters' discount and other costs of issuance and (ii) deposit $1,460.7 million in an irrevocable trust with an escrow agent to pay the outstanding principal and accrued interest for the refunded bonds on the applicable redemption date. As a result, the refunded bonds are considered to be defeased.

The defeasance of the refunded bonds resulted in a reduction in the Authority's total debt service payments over the next 27 years of approximately $348.2 million and resulted in an economic gain (difference between the present values of the old and new debt service payments) of approximately $213.3 million.

The 2020 Senior Bonds are senior debt. Each purchaser of 2020 Senior Bonds consented by its purchase and execution of an investor letter to the terms and execution by the Trustee of a Second Amended and Restated Trust Agreement. The Second Amended and Restated Trust Agreement will be executed and become effective upon the receipt of the written consent of (1) the holders of all outstanding Bonds of each lien priority under the Trust Agreement and, (2) the Federal Lenders; and provide among other changes, to convert the security on the Authority's revenue from a gross revenue pledge to a net revenue pledge.

l) Disaster Recovery Funds

On January 5, 2021, the President of the United States announced that FEMA would award federal grant funds to help rebuild Puerto Rico's water and wastewater treatment plants, pumping stations, dams, and reservoirs affected by Hurricane María. On January 8, 2021, the funds were obligated through an agreement (the "2021 FEMA Funding Agreement") by which FEMA agreed to pay $3.66 billion to the Authority for recovery and resiliency capital projects related to damage suffered by the Authority during Hurricane María. The amount represents the federal government's 90% funding share of the $4.07 billion fixed cost estimate for repairing such damage to the Authority's facilities. The Authority is required to meet a 10% cost share ("match") requirement for its FEMA-funded permanent work projects under the 2021

FEMA Funding Agreement. The Authority plans to meet its cost-share portion with federal Housing and Urban Development ("HUD") Community Development Block Grant – Disaster Recovery Flexible Match program ("CDBG-DR Program") funds, as they become available. On September 2, 2021 the Department of Housing of Puerto Rico and the Authority entered into a sub-award agreement for $200 million under the CDBG-DR Non-Federal Match Program to fund the state match of the FEMA award.

m) 2021 and 2022 Debt Refunding

On August 25, 2021, the Authority issued 2021 Series A, 2021 Series B and 2021 Series C senior revenue refunding bonds in a total principal amount of $1,089.8 million and on June 15, 2022, the Authority expects to issue 2022 Series A forward delivery senior revenue refunding bonds in a total principal amount of $565.2 million (together, the "Refunding Bonds") to refinance in the aggregate all of the Authority's 2012 Series A and B senior revenue bonds (the "Refunded Bonds") with an outstanding principal balance of $1,806 million.

The Refunding Bonds consist of the principal amounts and under the transactions included below (in thousands):

Refunded Bonds	Transaction	New Series	Refunding Bonds Par	Closing Date
2012A	Tender of a portion of 2012 Series A senior revenue bonds for cash purchase by Authority	2021A	$92,330	August 25, 2021
2012A	Exchange of a portion of 2012 Series A senior revenue bonds for new senior revenue refunding bonds	2021B	$842,410	August 25, 2021
2012B	Current refunding of 2012 Series B senior revenue bonds	2021C	$155,090	August 25, 2021
Remaining 2012A	Forward delivery current refunding of remaining 2012 Series A senior revenue bonds	2022A	$565,180	Expected to be June 15, 2022
			$1,655,010	

The Refunding Bonds bear interest at rates ranging from 4% to 6% per annum with yields at the time of issuance or expected issuance ranging from 3.14% to 3.7% and maturity dates ranging from July 1, 2022 to July 1, 2047.

The proceeds of a portion of the Refunding Bonds issued on August 25, 2021, totaling $260.1 million, including $11.4 million in premium, together with $1.3 million in Authority funds on hand, were used to (i) pay for $7.3 million in underwriters' discount, dealer manager fees and other costs of issuance, (ii) pay on August 25, 2021, the purchase price of $98.6 million (including $0.6 million in accrued interest) for the Authority's 2012 Series A revenue bonds tendered for purchase and cancelled, and (iii) deposit on August 25, 2021, $154.2 million in an irrevocable trust with an escrow agent to pay the outstanding principal and accrued interest for a portion of the Refunded Bonds on or prior to August 30, 2021. As a result of the irrevocable deposit in (iii) above and the payment of the purchase price and cancellation in (ii) above, that portion of the Refunded Bonds is in accordance with the Trust Agreement deemed to have been defeased and retired on August 25, 2021.

In addition, on August 25, 2021, the Authority issued $842.4 million principal amount of 2021 Series B senior revenue refunding bonds in exchange for $920.7 million principal amount of 2012 Series A senior revenue bonds tendered for exchange and cancelled. In connection with such tender and exchange, the

Authority paid to the holders of such 2012 Series A senior revenue bonds $7.3 million of accrued interest. As a result of the tender and exchange, that portion of the Refunded Bonds is in accordance with the Trust Agreement deemed to have been retired on August 25, 2021.

The anticipated proceeds of the Refunding Bonds to be issued on June 15, 2022, totaling $643.1 million, including $77.9 million in premium, together with $15.5 million in expected Authority funds on hand, will be used to (x) pay for $3.2 million in underwriters' discount and other costs of issuance and (y) deposit on June 15, 2022, $655.4 million in an irrevocable trust with an escrow agent to pay on July 1, 2022 the outstanding principal and accrued interest for the remaining portion of the Refunded Bonds that was not defeased and deemed retired on August 25, 2021 as described above. If the irrevocable deposit in (y) above is made on June 15, 2022, that remaining portion of the Refunded Bonds will in accordance with the Trust Agreement be deemed to have been defeased and retired on June 15, 2022.

The 2021 and 2022 Debt Refunding will result in (a) a reduction of the Authority's total debt service payments over the next 26 years of approximately $569.7 million and (b) an economic gain (the difference between the present values of the old and new debt service payments) of approximately $385 million.

The Refunding Bonds are senior debt. Each purchaser of the Refunding Bonds consented in writing to the terms and execution by the Trustee of a Second Amended and Restated Trust Agreement. The Second Amended and Restated Trust Agreement will (1) be executed and become effective upon the receipt of the written consent of (a) the holders of all outstanding Bonds of each lien priority under the Trust Agreement and, (b) the Federal Lenders and (2) amend the Trust Agreement, among other changes, to convert the security on the Authority's outstanding revenue bonds from a gross revenue pledge to a net revenue pledge (resulting in the payment of Authority operating expenses ahead of the payment of debt service).

n) Collective labor agreement negotiation

On June 30, 2021, Act 9-2021 was enacted to guarantee the collective labor agreement negotiation process and allow for essential services continuity. Act 9-2021 stipulates that any collective agreement expired as of June 30, 2021 will be extended in terms of non-economic clauses or other clauses not affected by Act 9-2021, until the parties thereto conclude the negotiation of a new agreement. The extension of these agreement terms will preclude the holding of representation elections or the disqualification of an exclusive bargaining representative. If the exclusive representative of an appropriate unit covered by Act 9-2021 wishes not to extend the applicable collective bargaining agreement and to begin negotiations without an extended agreement, notice must be given to the appointing authority under which the appropriate unit operates not later than 15 days after the enactment of Act 9-2021. This will not prevent the parties from agreeing to extend the collective bargaining agreement in the course of such negotiations, subject to any other legislation applicable to such agreement. The Authority did not receive notice regarding commencement of negotiations without an extended agreement within such 15-day period from any exclusive representative of an appropriate unit to any of the Authority's collective bargaining agreements covered by Act 9-2021.

On April 6, 2021, the Authority received a partial labor agreement proposal from UIA. UIA requested that the Authority provide it with financial information to develop a proposed comprehensive revision to the Authority's CBA with UIA incorporating amendments to clauses with economic impact. After the Authority receives the formal comprehensive proposal, it will start its evaluation process. Revisions to the UIA CBA will be subject to the current legal framework, including Act 26-2017, and to approval by the Oversight Board.

o) PREPA Employees Transfer

During May, 2021, the Office of Administration and Transformation of the Human Resources of the Government of Puerto Rico ("OATRH" by its Spanish acronym) advised the Authority that starting on June 1, 2021, in compliance with Act 120-2018 and Act 8-2017, the Authority would be required to incorporate in its payroll certain employees from the Puerto Rico Electric Power Authority ("PREPA"). As of July 1, 2021, 66 PREPA employees had been transferred to the Authority.

p) 2021 DWSRF Financial Assistance Agreement

On August 30, 2021, PRASA entered into a Financial Assistance Agreement with the PRDOH and the PRIFA under the DWSRF for $46 million. From the total assistance, $24 million are under subsidized loans (0% interest and principal forgiveness) and $22 million of a 30-year, 1% loan. The agreement will allow for funding of five water improvements capital projects. The loan portion of the agreement is designated as Senior Indebtedness under PRASA's Master Trust Agreement.

Required Supplementary Information

Schedule of the Authority's Proportionate Share of the Total Pension Liability (Unaudited)
June 30, 2019 and 2018

(In thousands)

For the fiscal year ended June 30,	Authority's proportion of the net pension liability	Authority's proportionate share of the total pension liability	Authority's covered-employee payroll	ERS plan's fiduciary position	ERS plan's fiduciary position as a percentate of the total pension liability
2019*	6.83100%	$ 1,672,879	$ -	n/a	n/a
2018*	6.81390%	$ 1,921,832	$ -	n/a	n/a

Notes

- ∗ The amounts presented have a measurement date of the previous year end
- ∗ Currently there are no active participants in this plan. Therefore, the covered payroll disclosure is omitted

Note: Fiscal year 2019 was the first year that the Authority transitioned from GASB Statement No. 68 to GASB Statement No. 73 as a result of the PayGo implementation. This schedule is required to illustrate 10 years of information. However, until a 10-year trend has been completed, information is presented only for the years for which the required supplementary information is available.

See acompanying independent auditors' report

Required Supplementary Information
Schedule of Funding Progress for the Authority's Post-employment Healthcare Benefits (Unaudited)
June 30, 2019 and 2018

(In thousands)

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Liability	Funded Ratio	Annual Covered Payroll	Percentage of Covered Payroll
June 30, 2019	$ -	$ 75,427	$ 75,427	0%	$ 120,262	63%
June 30, 2018	$ -	$ 72,670	$ 72,670	0%	$ 128,331	57%
June 30, 2017	$ -	$ 74,549	$ 74,549	0%	$ 128,331	58%
June 30, 2016	$ -	$ 76,226	$ 76,226	0%	$ 143,209	53%
June 30, 2015	$ -	$ 75,326	$ 75,326	0%	$ 135,965	55%
June 30, 2014	$ -	$ 72,027	$ 72,027	0%	$ 148,131	49%

Notes

This schedule will be expanded to show 10 years once information becomes available in the future.

Puerto Rico Aqueduct and Sewer Authority
(A Component Unit of the Commonwealth of Puerto Rico)

Required Supplementary Information
Schedule of the Authority's Proportionate Share of the ERS for Postemployment Benefits
June 30, 2019 and 2018

(In thousands)

For the fiscal year ended June 30,	Authority's proportion of total OPEB liability	Authority's proportionate share of total OPEB liability	Authority's covered-employee payroll	Authority's proportionate share of the net pension liability as percentage of covered-employee payroll	ERS plan's fiduciary net position	ERS plan's fiduciary net position a a percentage of the total pension liability
2019*	5.45638%	$ 45,951	$ -	n/a	n/a	n/a
2018*	5.24269%	$ 48,259	$ -	n/a	n/a	n/a
2017*	5.16898%	$ 47,581	$ -	n/a	n/a	n/a

Notes

- ∗ The amounts presented have a measurement date of the previous year end
- ∗ Currently there are no active participants in this plan. Therefore, the covered payroll disclosure is omitted

Note: Fiscal year 2017 was the first year that the new requirements of GASB Statement No.75 were implemented by the Authority. This schedule is required to illustrate 10 years of information. However, until a 10-year trend has been completed, information is presented only for the years for which the required supplementary information is available.

See acompanying independent auditors' report

Supplemental Schedule
Financial Results and Debt Coverage Calculation
as required by the MAT

Puerto Rico Aqueduct and Sewer Authority
(A Component Unit of the Commonwealth of Puerto Rico)

Financial Results and Debt Coverage Calculation as required by the MAT
As of June 30, 2019 and 2018

	2019	2018
Service revenues (cash basis)	$ 1,102,442	$ 899,957
Other Income	1,496	1,121
Developers Contributions	2,064	1,604
Insurance Proceeds (BI)	50,000	50,000
Operating revenues (cash basis)	1,156,002	952,682
Total authority revenues	1,156,002	952,682
Operating expenses:		
Payroll and payroll related	130,295	360,000
Electricity	114,462	104,510
Other operating expenses	263,046	324,632
Total net operating expenses	507,803	789,142
FEMA Approppriations for Expenses	(60,519)	(70,747)
Subsidies (netted from revenues)	(5,204)	(4,757)
Non cash reserve and other adjustments	145,928	(53,258)
Adjusted operating expenses	588,008	660,380
Total net revenues per MAT	$ 567,994	$ 292,302

Debt service coverage calculation

	2019	2018
Operating revenues	**$ 1,156,002**	**$ 952,682**
Senior debt (Net of funds available in the Senior Bond Fund of $43.6M)	230,790	230,789
Accumulated coverage ratio (Min 2.5x) - section 7.01 (i) MAT	***5.01***	***4.13***
Senior subordinated debt	0	1,387
Accumulated coverage ratio (Min 2.0x) - section 7.01 (ii) *MAT*	***5.01***	***4.10***
All bonds and Other Systems Indebtedness	277,297	254,201
Accumulated coverage ratio (Min 1.5x) - section 7.01 (iii) *MAT*	***4.17***	***3.75***

Rate Covenant Calculation

	2019	2018
Total Obligations (Debt Service, Current Expenese and MAT required deposits	957,348	1,040,720
Accumulated coverage ratio (Min 1.0x) - section 7.01 (iv) *MAT*	***1.21***	***0.92***

Financial Results and Debt Coverage Calculation as required by the MAT
As of June 30, 2019 and 2018

The all obligations coverage ratio is calculated as required by section 7.01 of the MAT, by comparing Authority revenues with total obligations. Total Obligations includes required debt service deposits, current expenses, and other deposits required by the MAT such as, the operating reserve fund and the capital improvement fund.

For the rate covenant calculation the total debt service does not include debt service payable on the Commonwealth Supported Obligations as no debt service was due and payable by the Authority with respect to the outstanding Commonwealth Supported Obligation as such debt service is contingent on the Commonwealth of Puerto Rico appropriation of funds to pay such debt service. In the absence of such appropriations, there is no debt service due and payable on the Commonwealth Supported Obligations. Related to Rural Development and State Revolving Funds Programs, considered Commonwealth Guaranteed Indebtedness the debt service requirement was included in accordance with the terms of Forbearance Agreements related to such programs in place starting on July 2016 through July 2020. Therefore, only the debt service required under such Forbearance Agreements was included for rate covenant calculation purposes.

As of June 30, 2018, the Authority rate covenant on all obligations was 0.92, as a result of lower revenues and increased costs experienced by the impact in the Authority's system of the 2017 Hurricanes. In accordance with the requirements of Section 7.01 of the MAT, the Authority submitted the rate covenant calculation to the Consulting Engineer after the fiscal year 2018 audited financial statements were issued. On March 23, 2021, the Consulting Engineer issued its "FY2018 Rate Covenant Compliance Review and Recommendations" stating that the Authority's inability to satisfy the All Obligations Rate Covenant in FY2018 was materially influenced by the 2017 Hurricanes, events that resulted in unique challenges to the Authority's operations and revenues and ultimately affected the Authority's ability to meet all the elements of the Rate Covenant set forth in the MAT. In its recommendations, the Consulting Engineer, although recognizing that many of the challenges affecting the Authority's ability to maintain compliance with the Rate Covenant during fiscal year 2018 were the result of extraordinary events, recommended some proactive actions that the Authority could take going forward to enhance Rate Covenant compliance such as (i) budgeting Authority Revenues above the minimum required 100% of all Indebtedness and establishing a margin above the Rate Covenant to absorb negative financial effects associated with unexpected events, (ii) continuing annual rate increases, and (iii) continuing to pursue revenue enhancing and cost saving initiatives as included in the Authority's fiscal plans.

During fiscal year 2019, the Authority collected billings from fiscal year 2018, affected by the 2017 Hurricanes, and as a result the rate covenant on all obligations increased to 1.21. The rate covenant on all obligations calculation was adjusted by a total of $150.1 million, net from $4.2 million of non-cash reserves, related to implementation of GASB Statement No. 73.

Kevane Grant Thornton

Kevane Grant Thornton LLP
33 Bolivia Street
Suite 400
San Juan, Puerto Rico 00917-2013

T + 1 787 754 1915

F + 1 787 751 1284

E kgt@pr.gt.com

linkedin.com/company/kevane-grant-thornton
facebook.com/kevanegrantthornton

Report of Independent Auditors 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 Directors of
Puerto Rico Aqueduct and Sewer Authority:

We have audited, in accordance with the auditing standards generally accepted in the United States and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of Puerto Rico Aqueduct and Sewer Authority (the Authority) as of and for the years ended June 30 2019 and 2018, and the related notes to the financial statements, which collectively comprise the Authority 's basic financial statements and have issued our report thereon dated October 13, 2021.

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 Authority's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency or a combination of deficiencies in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did identify a deficiency in internal control described in the accompanying Schedule of Findings and Responses as item 2019-01 that we considered to be a material weakness:

Kevane
Grant Thornton

Compliance and Other Matters
As part of obtaining reasonable assurance about the Authority's financial statements are free of 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`s 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 in accordance with *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 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.

Kevane Grant Thornton LLP

San Juan, Puerto Rico,
October 13, 2021.

CERTIFIED PUBLIC ACCOUNTANTS
(OF PUERTO RICO)
LICENSE 217
EXPIRES DECEMBER 1, 2022.
STAMP E448650
OF THE PUERTO RICO SOCIETY OF
CPAS WAS AFFIXED TO THE FILE
COPY OF THIS REPORT.

Finding No. 2019-01 – Financial Statements

Area:

Capital Assets

Category:

Internal control

Condition:

During the period under audit, management became aware of a misstatement caused by an error in the application of a change in useful lives that had an impact in the depreciation expense and net book value ("NBV") of depreciable assets in previous periods.

Criteria:

As stated in the control objective 7, contained in appendix K, of the written policy of fixed assets of the Authority (Known as *"Procedimiento 404"*), the estimation of useful lives is periodically revised to provide a reasonable depreciation expense and net book value of fixed assets in the annual financial statements.

Also, US GAAP states that a change in the estimated useful life of a long-lived asset is a change in accounting estimate and should be accounted for prospectively, using as the depreciable basis the NBV at the time of change.

Cause:

During fiscal year 2011, the Authority performed an assessment of the useful lives of all its depreciable capital assets, which resulted in a change of useful lives estimation to properly consider industry averages, historical maintenance, replacement trends, and geological and hydrological conditions.

At the time of the change in useful lives, and as of the date the error was detected, the Authority did not modify its system to adjust the remaining useful life of the assets as a result of the amortization method used by the Authority's accounting system. Consequently, assets acquired before fiscal year 2011 were continued to be depreciated at its original cost, rather than based on the NBV and the adjusted remaining useful lives, resulting in the misstatement mentioned in the effect section of this finding.

Effect:

The correction of such error amounted to $286 million and was retrospectively applied, as required by US GAAP.

Recommendation:

We recommend management to comprehensively review, correct, and periodically monitor the system inputs and processes that relates to the recording of fixed assets and related depreciation.

Management response:

The error in the depreciation calculation was a consequence of the amortization methodology applied by the accounting system of the Authority.