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M&C Fwd: Guam Waterworks Authority FY 2019 Financial Audit Reports

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05-15-20	4:25 PM	05-15-20	Guam Waterworks Authority FY 2019 Financial Audit Reports.*	Office of Public Accountability

Sinseru yan Minagåhet,

Office of the Speaker • Tina Rose Muña Barnes
Committee on Public Accountability, Human Resources & the Guam Buildup

35th Guam Legislature
I Mina'trentai Singko na Liheslaturan Guåhan

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Gumai pribilehu yan konfedensia este siha na mensåhi. Solo espesiåtmente para hågu ma entensioña pat ma aturisa para unrisibi. Sen prubidu kumu ti un ma aturisa para manribisa, na'setbe, pat mandespåtcha. Yang mensåhi , put fabot ago' guatu gi I numa'huyong gi as speaker@guamlegislature.org yan despues destrosa todu siha I kopian mensåhi. Si Yu'os ma'åse'.

---------- Forwarded message ---------
From: **Ira Palero** <ipalero@guamopa.com>
Date: Fri, May 15, 2020 at 4:25 PM
Subject: Guam Waterworks Authority FY 2019 Financial Audit Reports
To: <admin@guamopa.com>
Cc: Benjamin Cruz <bjcruz@guamopa.com>

Hafa Adai,

Transmitted electronically are the Guam Waterworks Authority (GWA) FY 2019 Financial Highlights, Financial Statements, Report on Compliance and Internal Control, and Letter to Those Ch
These reports may also be found at http://www.opaguam.org.

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Best Regards,

Ira Palero, CPA

Auditor I | ***Office of Public Accountability - Guam***

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Guam Waterworks Authority – Fiscal Year 2019 Financial Highlights

May 15, 2020

Hagåtña, Guam – The Office of Public Accountability released the Guam Waterworks Authority (GWA) financial statements, report on compliance and internal control, and the auditor's communication with those charged with governance for fiscal year (FY) 2019. GWA closed FY 2019 with an increase in net position (net income) of $37.3 million (M). Independent auditors Deloitte & Touche, LLP rendered unmodified "clean" opinions on GWA's financial statements and compliance for all major federal programs. No findings pertaining to federal funds were identified in FY 2019. We commend GWA for qualifying as a low-risk auditee for the fourth consecutive year.

Status of GWA Capital Improvement Plan, Financial Plan, and Debt

In FY 2019, capital assets increased by $67.4M. The increase is attributable to on-going major capital improvement projects associated with a 2011 Federal Court Order, GWA's 5-year Capital Improvement Plan (CIP), and the Water Resources Master Plan (WRMP) Update in August 2018. GWA continues to see the effects of the decreasing availability of skilled construction workers but remains focused on meeting the requirements of the 2011 Federal Court Order resulting in only one element remaining of the 93 compliance items.

In 2018, the Consolidated Commission on Utilities approved the adoption of the 2018 WRMP, which outlines GWA's 20-year planning projections; enterprise consideration; updated goals and objectives; and the CIP needed to upgrade, maintain, and sustain the GWA Water and Wastewater Systems.

In June 2019, GWA's Five-Year Financial Plan was approved in correspondence to its CIP, which was based on the first five years of GWA's 2018 WRMP. A stipulation was later signed agreeing to rate increases of 5% for both FY 2020 and FY 2021, with the rate increase for FY 2020 taking effect on March 1, 2020. The stipulation also calls for a comprehensive review and update of the financial plan and rates for FY 2022 through 2024 after several analytical studies have been completed. These studies are intended to inform future rate adjustments in relation to GWA's cost-of-service, rate design, water loss control efforts, and expansion of wastewater collection customer base.

GWA's outstanding long-term debt decreased by $8.9M to $496.4M as of FY 2019.

Non-Revenue Water Continues to be a Challenge

One of GWA's most challenging problems is the amount of non-revenue water, or unaccounted for water. According to GWA's latest figures, approximately 61% of the water produced annually is not consumed or contributing to GWA's revenue, due to either water losses (leaks or breaks) or unauthorized or unbilled consumption. GWA continues to incorporate its focus on leak repairs, pressure zone re-alignments, and the pilot testing of District Metered Areas by installing

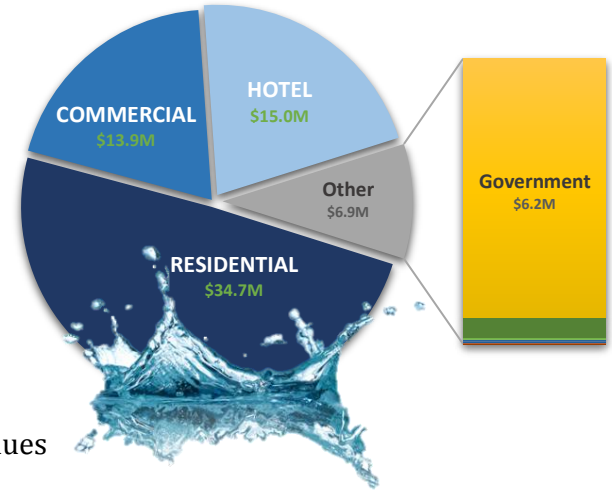
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meters at discrete supply points and monitoring results as part of its comprehensive Water Loss Control Program.

Increase in Operating Revenues and Decrease in Operating Expenses

GWA's $37.3M net income increased its total net position to $201.5M as of FY 2019. Operating revenues increased by $3M to $110.5M in FY 2019, due primarily to a $1.9M increase in water revenues and a $1.5M increase in wastewater revenues, with hotel customers accounting for most of the increase. As rates did not change in FY 2019, the increases in revenues were due to increases in customers and consumption. In FY 2019, water revenues ($70.8M) accounted for 64% of GWA's operating revenues, while wastewater revenues ($41.2M) accounted for 37%. The residential (49%), commercial (20%), and hotel (21%) sectors continue to account for 90% of water revenues. Hotel water revenues significantly increased by $1.2M.

Chart 1. **FY 2019 Water Revenues**



Operating and maintenance expenses decreased by $1.7M in FY 2019, mainly due to decreases in retiree health care costs and other benefits and savings from the decline in water purchases. Retiree health care costs and other benefits decreased by $6.3M. Water purchased from the U.S. Navy decreased by $2.4M due to a combination of decreases in approximately 171K kilo gallons of water purchased and a decrease in the Navy's tariff from $11.27 to $10.18 in FY 2019. As a result, operating income increased by $4.6M during FY 2019.

Other Post-Employment Benefits (OPEB) and Pension Liabilities

Governmental Accounting Standards Board (GASB) No. 75 pertains to the accounting and reporting of post-employment medical, dental, and life insurance benefits to retirees, their spouses, children, and survivors. GWA recorded a $62.7M liability for its net OPEB obligation as of FY 2019, which significantly decreased by $26.3M from FY 2018.

GWA recorded its $49.6M proportionate share of the Government of Guam's net pension liabilities as of FY 2019. GWA's net pension liability included $11.2M for the ad hoc cost of living allowance (COLA)/supplemental annuity plan for Defined Benefit retirees and $1.1M for the ad hoc COLA plan for Defined Contribution Retirement System retirees. GWA's pension expense decreased to $6.4M in FY 2019.

Reports on Internal Control and Compliance and Management Letter

D&T issued clean opinions on GWA's financial statements and compliance for all major federal programs, with no findings in FY 2019. In its Letter to Those Charged with Governance, D&T identified one deficiency to consider the reassessment of long outstanding receivables. In addition, a separate Management Letter on GWA's internal control over information technology identified four deficiencies.

For more details, refer to the Management's Discussion and Analysis in the audit report at www.opaguam.org and at www.guamwaterworks.org.

GUAM WATERWORKS AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

FINANCIAL STATEMENTS, ADDITIONAL INFORMATION AND INDEPENDENT AUDITORS' REPORT

YEARS ENDED SEPTEMBER 30, 2019 AND 2018

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INDEPENDENT AUDITORS' REPORT

Commissioners
Consolidated Commission on Utilities:

Report on the Financial Statements

We have audited the accompanying financial statements of Guam Waterworks Authority (GWA), a component unit of the Government of Guam, which comprise the statements of net position as of September 30, 2019 and 2018, and the related statements of revenues, expenses, and changes in net position and of 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.

Auditors' Responsibility

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Guam Waterworks Authority as of September 30, 2019 and 2018, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Deloitte.

Emphasis of Matter

COVID-19

As discussed in Note 17 to the financial statements, GWA determined that the COVID-19 pandemic may negatively impact its business, results of operations and net position. However, due to uncertainty surrounding the duration of the state of emergency, GWA is unable to reasonably estimate its ultimate financial impact. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 4 through 13 as well as the Schedule of Proportionate Share of the Net Pension Liability on pages 52 through 54, the Schedule of Pension Contributions on page 55, the Schedule of Changes in the Proportionate Share of the Total OPEB Liability and Related Ratios on page 56, the Schedule of Proportionate Share of the Total OPEB Liability on page 57, and the Schedule of OPEB Contributions on page 58 be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Financial Information

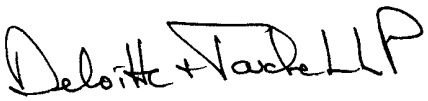
Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The Schedule of Certain Operating and Maintenance Expenses, the Schedule of Construction Work in Progress, the Schedules of Net Position, Revenue, Expenses and Changes in Net Position for the System Development Charge Fund, and the Schedule of Operating Revenues on pages 59 through 62 are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, such additional information on pages 59 through 62 is fairly stated, in all material respects, in relation to the financial statements as a whole.

The Schedule of Employee and Other Data on page 63 has not been subjected to the auditing procedures applied in the audit of the financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Deloitte.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated May 14, 2020, on our consideration of GWA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of GWA's 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 GWA's internal control over financial reporting and compliance.



May 14, 2020

As management of the Guam Waterworks Authority (GWA), we offer readers of GWA's financial statements this narrative overview and analysis for the fiscal year ended September 30, 2019. This discussion has been prepared by GWA management to provide an overview of the Authority's financial activities for the fiscal year (FY) ending September 30, 2019. It is based on the financial statements provided in the annual audit report. Comparable financial data from the prior year is also provided.

The following Management's Discussion and Analysis (MD&A) should be read in conjunction with GWA's basic financial statements and related notes to enhance understanding of the Authority's financial performance.

Introduction

GWA provides water and wastewater services to the majority of Guam's civilian population and some military facilities. In 2002, pursuant to Public Law 26-76, the Authority was converted from a government agency to a Guam public corporation governed by the Consolidated Commission on Utilities (CCU).

The CCU is an elected body with five staggered positions and decision-making authority over GWA operations, including the development of operating and financial budgets and overall management strategy and direction. The CCU hires the General Manager, the Legal Counsel, and the Chief Financial Officer for GWA.

At the end of FY2019, GWA had a staff of 377 full time equivalent (FTE) employees. GWA's main offices are co-located with the Guam Power Authority (GPA) in Fadian. Satellite offices in Hagåtña and Upper Tumon serve both GWA and GPA customers. Operations and Maintenance personnel also work out of water and wastewater treatment plants as well as field offices in various locations.

GWA owns and operates a variety of facilities that provide water and wastewater service to most of the island residents. These facilities represent a significant investment of ratepayer funds and include substantial visible and underground infrastructure assets. The condition and performance of GWA's existing utility system assets were reviewed in the 2018 Water Resources Master Plan Update.

Water sources on the island of Guam include groundwater, surface water, and springs. Groundwater supplies about 90 percent of the drinking water for Guam's residents and visitors and wells are used to extract the groundwater for use. GWA owns 120 wells, of which 104 are currently operational. GWA's water system includes a network of transmission and distribution pipelines, booster pump stations, and reservoirs. In FY2019, GWA had over 43,000 water customers.

GWA provides wastewater services for Guam's general population, Andersen Air Force Base and other military installations in Northern Guam. In FY2019, GWA had over 29,800 wastewater customers. The system is separated into seven wastewater basins and includes six wastewater treatment plants and an extensive collection system. The GWA wastewater collection systems are comprised of gravity sewer pipes, force mains, manholes, pump stations, ejector stations, and siphons.

Regulatory Oversight

The Guam Public Utilities Commission (PUC) has the responsibility and authority to regulate rates set by GWA as well as to approve all contracts over $1 million. The PUC is governed by seven commissioners who serve six-year terms under appointment by the Governor and confirmation by the legislature. Note that the last rate increase occurred in FY2018. The PUC subsequently approved rate increases for FY2020 and FY2021 in February 2020.

GWA must adhere to Guam and federal regulations for both water and wastewater treatment and services. Water standards are based on the requirements established by the Safe Drinking Water Act (SDWA), while wastewater treatment and disposal are governed by the Clean Water Act (CWA).

The US Environmental Protection Agency (USEPA) issues NPDES (National Pollutant Discharge Elimination System) permits for GWA facilities when required and is responsible for monitoring its compliance. Guam Environmental Protection Agency is the territorial agency in charge of monitoring GWA water system operations as well as for SDWA compliance.

GWA is currently under a 2011 Court Order to address USEPA complaints and has completed all but one element associated with repairing or replacing potable water reservoirs. Over the last two years, GWA has been negotiating with USEPA on a consent decree to address its wastewater conveyance systems; GWA believes an agreement will be reached by the end of 2020.

Overview of the Financial Statements

This MD&A is intended to serve as an introduction to the GWA's basic financial statements. GWA's basic financial statements are for a single proprietary fund and include the financial statements, notes to those financial statements and other supplementary and statistical information.

Proprietary Fund Financial Statements

GWA's operations are accounted for as a single proprietary fund using the full accrual basis of accounting. In this regard, GWA operations are accounted for in a manner similar to a private enterprise. Within this one proprietary fund, GWA segregates revenues and expenses for various purposes such as operations, debt service and capital improvements, but that segregation does not create separate proprietary funds.

Notes to the Financial Statements

The notes provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes to the financial statements can be found beginning on page 19 of this report.

Other Information

In addition to the basic financial statements and accompanying notes, this report also presents supplementary and statistical information. Supplementary and statistical information can be found beginning on page 52 of this report.

Financial Condition and Results

The Authority's total net position increased by $37.3 million during the fiscal year (see table below) primarily due to the $27.8 million in operating income.

The net increase in property, plant and equipment of $67.4 million is due primarily to on-going construction projects related to wastewater treatment plant replacement, transmission lines, reservoir replacements, booster pump upgrades, sewer line rehabilitation/replacements, deep well rehabilitations, acquisition of mechanical and electrical equipment and general plant improvements.

The Authority's net investment in capital assets represents 94.8% of total net position. The net amount invested in capital assets increased by $27.5 million compared to prior year.

Summary Statements of Net Position

			2019 to 2018 Comparison		
	September 30, 2019	September 30, 2018	Increase/ (Decrease)	% Change	September 30, 2017
Assets and Deferred Outflows:					
Current and other assets	$ 270,421,778	$ 315,973,947	$ (45,552,169)	-14.42%	$ 374,191,577
Property, plant and equipment, net	617,097,745	549,691,352	67,406,393	12.26%	459,580,691
Deferred outflows of resources	28,016,075	26,101,676	1,914,399	7.33%	17,379,576
Total assets and deferred outflows	$ 915,535,598	$ 891,766,975	$ 23,768,623	2.67%	$ 851,151,844
Liabilities and Deferred Inflows:					
Current and other liabilities	$ 152,516,590	$ 178,288,295	$ (25,771,705)	-14.46%	$ 176,761,197
Long-term debt	528,282,698	538,644,643	(10,361,945)	-1.92%	533,892,880
Deferred inflows of resources	33,202,806	10,599,064	22,603,742	213.26%	1,076,320
Total liabilities and deferred inflows	714,002,094	727,532,002	(13,529,908)	-1.86%	711,730,397
Net Position:					
Net investment in capital assets	$ 190,953,226	$ 163,459,395	$ 27,493,831	16.82%	$ 139,348,797
Restricted	18,674,546	17,679,328	995,218	5.63%	18,481,379
Unrestricted	(8,094,268)	(16,903,750)	8,809,482	-52.12%	(18,408,729)
Total net position	201,533,504	164,234,973	37,298,531	22.71%	139,421,447
Total liabilities, deferred inflows and net position	$ 915,535,598	$ 891,766,975	$ 23,768,623	2.67%	$ 851,151,844

Operating income increased by 19.9% from the previous year, from $23.2 million to $27.8 million in FY2019. GWA saw operating revenues increase from $107.6 million to $110.5 million in FY2019, or approximately 2.8%, while on the other hand, operating costs were at $82.7 million, a slight decrease of $1.7 million from last year.

Water revenues (total) increased by $1.6 million or 2.3% over the prior fiscal year. Hotel customers accounted for most of the increase in FY2019.

Wastewater revenues (total) increased by $1.3 million or 3.2% over the prior fiscal year, also primarily due to hotel customers.

Operating expenses are generally driven by power, water purchases, salaries expenses, and depreciation. These costs account for almost 78.1% of O&M expenses. The table below illustrates the changes among major cost components.

- Total operating expenses decrease was nominal at $1.7 million or 2.0% over the prior fiscal year. In comparison to the previous fiscal year, contractual showed the largest increase (percentage wise) at 18.0%, followed by salaries and wages at 13.5% and power purchases at 10%. However, such increases were offset by savings from water purchases which declined by 27.7% compared to the prior fiscal year.

- Net non-operating expenses decreased by $1.3 million. Interest expense decreased by $0.7 million while non-operating revenues increased by of $0.6 million.

A comparative analysis of Revenues, Expenses and Changes in Net Position, FY2018 – FY2019, as well as FY2017 amounts, are illustrated in the Table below:

Statements of Revenues, Expenses and Changes in Net Position

	September 30, 2019	September 30, 2018	2019 to 2018 Comparison Increase/ (Decrease)	% Change	September 30, 2017
Operating Revenues:					
Water	$ 70,830,149	$ 69,261,559	$ 1,568,590	2.26%	$ 66,573,958
Wastewater	41,247,772	39,956,903	1,290,869	3.23%	38,676,388
Other	679,465	519,529	159,936	30.78%	435,514
Bad debts	(2,217,121)	(2,162,950)	(54,171)	2.50%	(1,316,397)
Total operating revenue	110,540,265	107,575,041	2,965,224	2.76%	104,369,463
Operating Expenses:					
Power purchases	16,150,781	14,686,486	1,464,295	9.97%	12,076,262
Water purchases	6,277,864	8,684,974	(2,407,110)	-27.72%	7,309,125
Sludge (waste) disposal fees	1,333,887	1,507,654	(173,767)	-11.53%	1,685,842
Salaries, wages and benefits	21,030,363	18,534,508	2,495,855	13.47%	19,697,917
Depreciation	21,174,220	19,280,249	1,893,971	9.82%	16,824,455
Administrative and general	8,510,862	8,072,979	437,883	5.42%	7,300,127
Contractual	5,945,478	5,036,651	908,827	18.04%	4,087,429
Retiree healthcare costs and other benefits	2,267,681	8,548,967	(6,281,286)	-73.47%	11,187,439
Total operating expenses	82,691,136	84,352,468	(1,661,332)	-1.97%	80,168,596
Net operating income	27,849,129	23,222,573	4,626,557	19.92%	24,200,867
Non-operating revenue	13,443,096	12,880,286	562,810	4.37%	13,739,609
Less: Interest Expense	(25,795,133)	(26,498,040)	702,907	-2.65%	(27,173,760)
Total non-operating revenues (expenses), net	(12,352,037)	(13,617,754)	1,265,717	-9.29%	(13,434,151)
Income before capital contributions	15,497,092	9,604,819	5,892,274	61.35%	10,766,716
Capital contributions	21,801,439	15,208,707	6,592,732	43.35%	21,811,030
Change in net position	37,298,531	24,813,526	12,485,005	50.32%	32,577,746
Net position - beginning year	164,234,973	139,421,447	24,813,526	17.80%	106,843,701
Net position - end of year	$ 201,533,504	$ 164,234,973	$ 37,298,531	22.71%	$ 139,421,447

The tables below illustrate the distribution of revenues and demand among major customer classes:

Annual Water Revenues (Excluding System Development Charges)

Class Type	FY19	FY18	2019 to 2018 Comparison Increase (Decrease)	% Change	FY17
Agricultural	$ 496,399	$ 460,076	$ 36,323	8%	$ 395,449
Golf Course	49,903	48,567	1,336	3%	80,243
Commercial	13,868,755	13,667,485	201,270	1%	13,962,171
Federal	23,137	31,502	(8,365)	-27%	39,532
Government	6,233,660	6,572,048	(338,388)	-5%	6,297,642
Hotel	14,955,990	13,802,981	1,153,009	8%	13,499,695
Irrigation	51,409	49,457	1,952	4%	60,821
Residential	34,689,848	34,100,450	589,398	2%	31,807,344
TOTAL	$ 70,369,101	$ 68,732,566	$ 1,636,535	2.38%	$ 66,142,897

Annual Wastewater Revenues (Excluding System Development Charges)

			2019 to 2018 Comparison		
Class Type	FY19	FY18	Increase (Decrease)	% Change	FY17
Commercial	$ 8,753,399	$ 8,735,533	$ 17,866	0%	$ 8,588,060
Federal	6,388,022	6,322,371	65,651	1%	5,610,218
Government	3,569,358	3,800,155	(230,797)	-6%	3,533,788
Hotel	13,178,157	11,937,462	1,240,695	10%	11,684,107
Residential	8,934,371	8,619,390	314,981	4%	8,819,329
TOTAL	$ 40,823,307	$ 39,414,911	$ 1,408,396	3.57%	$ 38,235,502

Annual Water Demand by Rate Class (in kGals)

			2019 to 2018 Comparison		
Class Type	FY19	FY18	Increase (Decrease)	% Change	FY17
Agricultural	90,803	81,127	9,676	12%	69,482
Golf Course	2,793	2,741	52	2%	5,252
Commercial	906,192	910,905	(4,713)	-1%	964,639
Federal	1,602	1,813	(211)	-12%	2,508
Government	405,980	450,165	(44,185)	-10%	448,430
Hotel	1,079,919	989,723	90,196	9%	1,004,525
Irrigation	7,896	8,504	(608)	-7%	10,143
Residential	3,359,905	3,313,613	46,292	1%	3,206,811
TOTAL	5,855,090	5,758,591	96,499	1.68%	5,711,790

Annual Wastewater Demand by Rate Class (in kGals)

			2019 to 2018 Comparison		
Class Type	FY19	FY18	Increase (Decrease)	% Change	FY17
Commercial	652,842	662,938	(10,096)	-2%	685,628
Federal	597,041	592,819	4,222	1%	533,174
Government	326,653	345,049	(18,396)	-5%	339,780
Hotel	707,934	639,157	68,777	11%	652,562
Residential	1,836,324	1,836,672	(348)	0%	1,861,916
TOTAL	4,120,794	4,076,635	44,159	1.08%	4,073,060

As reported on the Statements of Net Position, the Authority's total net position increased by $37.3 million during the fiscal year due mainly to net investment in capital assets.

Capital Assets

The Authority had $617.1 million (net of accumulated depreciation) invested in a broad range of utility capital assets as of September 30, 2019. The investment in capital assets includes building improvements, water treatment plants, water transmission and distribution mains, sewer lines, water reservoirs, pump stations, wastewater treatment facilities, deep wells, meter replacements, fire hydrant replacements, machinery and equipment (see Table below).

In the current fiscal year 2019, capital assets increased by $67.4 million (net) or 12.3% over the prior fiscal year. The increase is attributable to ongoing major capital improvement projects associated with a 2011 Federal Court Order, the Authority's 5-year Capital Improvement Program, and the Water Resources Master Plan Update, August 2018.

The Authority's revenue, long-term debt, and grants-in-aid are used to finance capital investments.

This year's major capital additions included:

Wastewater	
Southern District Wastewater	$ 120,901,000
Northern District Wastewater	8,384,000
	$ 129,285,000
Water	
Tank Repair & Replacement Program	$ 19,265,000
Deepwell Rehab and New Wells Sites	2,064,000
Line Replacement	8,939,000
General Plant Improvements	2,695,000
	$ 32,963,000

Table 5
Capital Assets, Net of Accumulated Depreciation

			2019 to 2018 Comparison		
	September 30, 2019	September 30, 2018	Increase (Decrease)	% Change	September 30, 2017
Plant, buildings and equipment, net	$ 513,020,424	$ 367,566,306	$ 145,454,118	39.57%	$ 346,773,806
Land	3,914,815	3,681,120	233,695	6.35%	1,110,998
Construction in progress	100,162,506	178,443,926	(78,281,420)	-43.87%	111,695,887
Total	$ 617,097,745	$ 549,691,352	$ 67,406,393	12.26%	$ 459,580,691

For additional information concerning capital assets, please refer to Note 5 to the financial statements.

Debt

As of September 30, 2019, the Authority had total long-term debt outstanding of $496.4 million, which is a decrease of $8.9 million or 1.8% over the prior year.

The Authority is required by bond covenants to maintain principal, interest, and reserve funds for the bond issues outstanding. In addition, the Authority is required to set rates and charges to yield earnings equal to at least 125% of the current annual debt service requirements of the outstanding 2010, 2013, 2014, 2016, and 2017 revenue bond series. The Public Utilities Commission set the requirement at 175%.

As of the end of FY2019, Moody's Investor Services, Fitch Rating and Standard & Poor's assigned a rating of Baa2, BBB- and A-, respectively, to GWA's Water and Wastewater Revenue Refunding Bonds Series 2017. The ratings are important benchmarks of an issuer's ability to meet its financial obligation. Each rating agency incorporates a rating scale indicating credit quality of the issuer. The scales are comprised of alphabetical symbols such as "AAA", "AA", "A", "BBB", "BB", "B" etc. For example, categorical ratings in the "AAA", "AA" and "A" range denote high credit quality meaning the issuer has a high capacity to meet its financial commitments whereas categorical ratings in the "BBB", "BB" and "B" range denote average credit quality. The lower the number of alpha characters assigned indicates the issuer is more susceptible to adverse effects or changes in circumstances and economic conditions than those with a higher number of alpha characters.

Long-Term Debt

			2019 to 2018 Comparison		
	September 30, 2019	September 30, 2018	Increase (Decrease)	% Change	September 30, 2017
2010 Bond Series	$ 1,895,000	$ 3,695,000	$ (1,800,000)	-48.71%	$ 114,525,000
2013 Bond Series	172,630,000	172,630,000	-	0.00%	172,630,000
2014 Refunding Bond Series	68,900,000	72,520,000	(3,620,000)	-4.99%	75,995,000
2016 Bond Series	143,310,000	143,310,000	-	0.00%	143,310,000
2017 Refunding Bond Series	107,365,000	107,660,000	(295,000)	-0.27%	
Bank Notes	2,319,108	5,529,024	(3,209,916)	-58.06%	8,571,487
Total	$ 496,419,108	$ 505,344,024	$ (8,924,916)	-1.77%	$ 515,031,487

For more information concerning debt, please refer to Note 6 to the financial statements.

Management's Discussion and Analysis for the year ended September 30, 2018 is in the report on the audit of GWA's financial statements dated March 27, 2019. That Discussion and Analysis explains the major factors impacting the FY 2018 financial statements and may be obtained from the GWA website at www.guamwaterworks.org/finance/ or can be obtained by contacting the Chief Financial Officer.

Other Matters

In December 2019, the Office of Public Accountability (OPA) issued Report 19-09 on Unclassified Employees' Pay Raises and Bonuses documenting its findings on compliance with the Open Government Law by the Consolidated Commission on Utilities (CCU) related to employee compensation. On February 11, 2020, the CCU cured the non-compliance through a de novo meeting. Subsequently, on February 21, 2020, the Office of the Attorney General filed suit against the 2015 CCU members in their individual capacities related to a pay adjustment for the then acting General Manager.

In the report, the OPA also noted that the CCU had hired the former Chief Financial Officer (CFO) under a contractual arrangement from 2009 to 2018. At the request of the CCU chair, General Counsel had opined in February 2018, that the relationship between the former CFO and GWA was that of employee and employer and, as such, in April 2018, the former CFO's status was changed from contractor to unclassified employee. Additionally, discussions were held with relevant entities to determine any potential liability related to the former CFO's compensation during the contractual period. During the course of their review, the OPA referred this matter to the Office of Attorney General (OAG). GWA has fully cooperated with the OAG in their investigation; GWA is not aware of any pending actions by the Attorney General in this matter.

While GWA has calculated amounts that might have been paid if the former CFO was an employee during the contractual period, such as employer contributions and related interest and penalties, those amounts are immaterial to the financial statements. Additionally, General Counsel has determined that the likelihood is remote that any potential liabilities may arise from matters in the OPA report.

Outlook, Challenges, and Opportunities

Looking Forward

As GWA completes several more compliance requirements under the 2011 Court Order, with only one compliance element remaining, Management will focus its attention in the coming years to capital and operational improvements in water and wastewater system performance and reliability that are still needed to achieve full regulatory compliance, improve levels of service to our ratepayers, and achieve gains in efficiency which will keep our services affordable.

FY2020-FY2024 Financial Plan

The CCU approved the filing of GWA's Five Year Financial Plan through Resolution 36-FY2019 on June 5, 2019. This Five Year Financial Plan included a corresponding Capital Improvement Program (CIP), which is based on the first five years of GWA's 2018 Water Resources Master Plan. On July 6, 2019, GWA petitioned the PUC for approval of the Five Year Plan and rate relief. A stipulation was signed between GWA and the PUC Consultant Georgetown Consulting Group on January 17, 2020 agreeing to rate increases of 5% in both FY2020 and FY2021. There were no substantive changes to GWA's CIP for FY2020 through FY2024, which included $342M in capital projects as follows: (a) $47M to complete the few remaining Court Order projects; (b) $113M in projects forecasted for the consent decree currently under negotiation with the EPA; (c) $66M in Non-Revenue Water related projects, and (d) $116M in projects related to safety, capacity, and efficiency for water and wastewater systems. The PUC approved the stipulation on February 27, 2020 in GWA Docket 19-08.

The stipulation also calls for a comprehensive review and update of the financial plan and rates for FY2022-FY2024 after a number of analytical studies have been completed. These studies are intended to inform future rate adjustments in relation to the Authority's cost-of-service, rate design, water loss control efforts, and expansion of wastewater collection customer base. The rate increase for FY2020 went into effect on March 1, 2020.

2020 Series GWA Water and Wastewater System Revenue Bonds & Refunding

On January 28, 2020, the CCU approved Resolution 15-FY2020 authorizing the sale of Water and Wastewater System Revenue Bonds at a par value of $134 million. The PUC will address this request at its March 2020 meeting. The majority of the bond proceeds will be used to complete projects related to the 2011 Court Order and the consent decree currently in negotiations, projects that will reduce non-revenue water, as well as projects to address safety and compliance, system capacity, and operational efficiency. Additionally, this resolution authorizes the refunding of the Series 2013 bonds dependent on market conditions at the time of the projected issuance of the 2020 bonds.

The PUC authorized the sale of the GWA Water and Wastewater System Revenue Bonds in GWA Docket 20-03 on March 26, 2020. However, it is unclear how the COVID-19 crisis will affect GWA's access to the bond market.

Financial Management System

GWA has been using JD Edwards (JDE) Enterprise Resource Planning (ERP) system since 1998 to manage its accounting, procurement and human resource business activities. By March 2020, the JDE World ERP will no longer be supported or enhanced by the vendor. GWA plans to move to the DXC Red Projects JDE Enterprise 1 (E1) solution, a state-of-the-art ERP. JDE E1 will allow GWA to adopt paperless digital processes as well as integrate with other GWA business systems. The CCU approved the procurement in February 2020. The request for approval of the purchase was sent to the PUC for action at their March 2020 meeting. However, there were not sufficient votes to approve the purchase; the request will be reconsidered at a future PUC meeting. It is anticipated that the implementation will take 6-7 months and conversion is targeted for calendar year 2021.

Non-Revenue Water

The Authority continues to address the longstanding issue of non-revenue water. According to the latest water audit figures, approximately 61% of water produced annually is not consumed or contributing to GWA's revenue, due to water losses (leaks, breaks) and unauthorized or unbilled consumption. GWA recognizes that Non-Revenue Water (NRW) is a perennial and expensive challenge that compromises its financial integrity and sustainability.

In 2016, GWA launched several initiatives intended to address water loss control on several levels. To address surface leaks and main breaks, those instances where losses are easy to detect and report, GWA increased its staffing and equipment resources to focus on improving its leak repair times and reducing the backlog of repair work orders at the end of any given day. To address background leaks, those instances where losses occur at pipe joints and other locations in quantities/flow rates which do not surface and are therefore not visually detectable or reported, GWA initiated capital improvements for pressure zone re-alignment. Based on a detailed study completed in 2015, the re-alignment of pressure zones within GWA's water system will employ piping and pressure-control valve installations in distinct zones across the water distribution network. Most recently, GWA engaged a water loss management consultant to pilot-test District Metered Areas (DMA) by installing meters at discrete supply points within three (3) defined areas or neighborhoods, and monitoring supply against metered customer demand within each DMA. The resulting analysis and focused repair efforts within each DMA showed significant reductions in water loss. These encouraging results underpin GWA's decision to incorporate all the above initiatives into a comprehensive Water Loss Control Program, which will provide for and document a long-term, sustainable and holistic approach to monitoring and managing water losses. As part of this program, a formal written Water Loss Control Plan is slated for completion in FY2020.

Capital Project Risk

GWA has demonstrated improvement in performance through the successful implementation of Capital Projects planning and execution. With the completion of two 5-year plans and its recently-approved CIP for FY2020-FY2024, the Authority has laid-out its on-going significant investments required by a 2011 Federal Court Order (CO), regulatory mandates and CCU policy as reflected in the adoption of the 2018 Water Resource Master Plan. Although GWA has successfully worked with the Department of Defense to avail its projects and contractors of allowable H-2B visa allotments associated with military build-up projects under the National Defense Authorization Act, GWA continues to see the effects of the H-2B visa issue decreasing availability of skilled construction workers and negatively affecting planned procurements for non-DoD capital projects. The risk of decreased construction bid competition and limited labor resources will continue to be a challenge for the Authority. GWA and contractors are working with each other to find ways to address the shrinking H-2B labor pool and prevent schedule delays and disruption.

Metering Challenges

The Authority has effectively addressed the short-term impacts of a defective meter issue for a limited number of GWA's residential meter inventory. The Authority has stepped up meter testing and replacement efforts, and has nearly completed phasing out the problematic meter model from its distribution system. GWA has seen recent rebounds in revenues due to the correction of the meter issue, and will focus in the coming year on improving metering infrastructure to provide enhanced customer experience with improved data and software availability.

Court Order Compliance

The CCU and Authority remain focused on meeting the requirements of the 2011 Federal Court Order and have nearly completed the execution of mandatory rehabilitation, repair and construction projects, with only one element remaining of the 93 compliance items. The 2011 Court Order established deadlines for completing outstanding projects that were identified in a previous Stipulated Order originally issued in 2003 and subsequently amended in 2004 and 2006. Although it has been over seven years since the utility has been fined by U.S. EPA for not meeting mandated deadlines, delays in the PUC action on GWA's Five-Year Financial Plan and Capital Improvement Program (FY2020 – FY2024) will likely result in non-compliance with the final Court Order deadline of December 31, 2020.

Secondary Treatment

EPA issued new NPDES permits for the Northern District, Hagåtña, Agat-Santa Rita, and Umatac-Merizo WWTPs that became effective on January 1, 2020. The new NPDES permits include secondary treatment standards, some of which the Hagåtña and Northern District WWTPs are unable to meet until a secondary treatment process is implemented. The WWTPs are currently meeting the requirements of the Court Order with chemically enhanced primary treatment, but are not in compliance with the secondary treatment standards and will require significant upgrades to comply with the permit.

In the fall of 2016, the Department of Defense (DOD), through the Office of Economic Adjustment (OEA), awarded the Authority grants totaling $55.3 million to initiate projects associated with the design and construction of improvements needed to bring the Northern District WWTP to full secondary treatment capability. In late 2017, the Authority received an additional grant award totaling $117.9 million for construction of wastewater improvements related to the build-up. In July of 2019, GWA issued a notice-to-proceed to the contractor selected for the construction of secondary treatment upgrades to the Northern District WWTP. The construction is underway and is on schedule to complete the upgrades by December 2021.

GWA continues its discussions with the EPA regarding the timing of required upgrades to the Hagåtña WWTP to secondary treatment as part of a negotiated consent decree. It is anticipated that if an agreement is reached, the consent decree may be completed and lodged in the U.S. District Court by the end of 2020.

COVID-19

In response to the Global Health Emergency declared by the World Health Organization and the national emergency declared by President Donald Trump, on March 14, 2020, Governor Lourdes A. Leon Guerrero, issued Executive Order 2020-03 declaring a state of emergency to respond to Novel Coronavirus (COVID-19). Further, Executive Order 2020-04 ordered the closure of all non-essential Government of Guam offices, the prohibition of large gatherings, and restricted entry into Guam from countries with confirmed COVID-19 cases.

In compliance with the Executive Orders, GWA required all essential staff to report to their worksites and nonessential staff to work from home while it closed its facilities to the general public. All essential services continue to be performed and supply chains have confirmed the continual provision of needed supplies. Service disconnections have been suspended through this emergency period. Revenues are being continuously monitored and a cost containment plan has been put into effect. While sufficient cash reserves are in place, Management will continue to assess the situation and make any course corrections required to ensure continuity of services to our customers while keeping the safety of our staff at the highest priority.

Request for Information

This financial report is to provide interested parties with a general overview of GWA's finances. If you have any questions about this report or need additional information, you may submit a request in writing to: Chief Financial Officer (CFO), Guam Waterworks Authority, Gloria B. Nelson Public Service Building, 688 Route 15, Mangilao, Guam 96913, or telephone (671) 300-6862.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Statements of Net Position
September 30, 2019 and 2018

	2019	2018
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
Current assets:		
Cash and cash equivalents:		
Unrestricted	$ 36,140,182	$ 32,833,499
Restricted	37,890,369	37,066,661
Receivables, net	19,656,952	21,778,609
Materials and supplies inventory, net of an allowance for obsolescence of $64,131 at September 30, 2019 and 2018	3,897,072	3,342,557
Prepaid expenses	1,667,815	677,828
Total current assets	99,252,390	95,699,154
Property, plant and equipment:		
Utility plant in service:		
Water system	381,484,623	348,812,303
Wastewater system	429,896,579	300,053,427
Non-utility property	23,200,625	21,720,023
	834,581,827	670,585,753
Less accumulated depreciation	(321,561,403)	(303,019,447)
	513,020,424	367,566,306
Land	3,914,815	3,681,120
Construction work in progress	100,162,506	178,443,926
Property, plant and equipment, net	617,097,745	549,691,352
Other noncurrent assets:		
Restricted cash and cash equivalents	171,169,388	220,274,793
Total assets	887,519,523	865,665,299
Deferred outflows of resources:		
Debt defeasance loss on refunding	11,976,380	12,810,787
Deferred outflows from pension	9,057,499	4,220,075
Deferred outflows from OPEB	6,982,196	9,070,814
Total deferred outflows of resources	28,016,075	26,101,676
Total assets and deferred outflows of resources	$ 915,535,598	$ 891,766,975

See accompanying notes to financial statements.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Statements of Net Position, Continued
September 30, 2019 and 2018

	2019	2018
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION		
Current liabilities:		
Current maturities of long-term debt:		
Revenue bonds payable	$ 8,770,000	$ 5,715,000
Note payable	2,319,108	3,203,870
Accounts payable:		
Guam Power Authority	1,577,607	1,353,897
Trade	2,728,360	2,887,026
Accrued interest	6,359,303	6,427,669
Accrued payroll and employee benefits	1,685,235	1,606,121
Current portion of employee annual leave	616,114	607,382
Payable to contractors	22,094,820	25,680,792
Customer deposits	2,349,490	2,238,239
Other liabilities	994,905	1,203,174
Total current liabilities	49,494,942	50,923,170
Long-term debt, less current maturities:		
Revenue bonds payable	517,193,590	527,400,619
Note payable	-	2,325,154
Employee annual leave, less current portion	806,635	822,821
DCRS sick leave liability	1,054,545	1,059,161
Net pension liability	49,593,171	45,451,352
OPEB liability	62,656,405	88,950,661
Total liabilities	680,799,288	716,932,938
Deferred inflows of resources:		
Deferred inflows from pension	1,444,744	1,857,164
Deferred inflows from OPEB	31,758,062	8,741,900
Total deferred inflows of resources	33,202,806	10,599,064
Commitments and contingencies		
Net position:		
Net investment in capital assets	190,953,226	163,459,395
Restricted	18,674,546	17,679,328
Unrestricted	(8,094,268)	(16,903,750)
Total net position	201,533,504	164,234,973
Total liabilities, deferred inflows of resources and net position	$ 915,535,598	$ 891,766,975

See accompanying notes to financial statements.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

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

	2019	2018
Operating revenues:		
Water:		
Private	$ 61,955,342	$ 60,049,063
Government	6,027,388	6,326,501
Legislative surcharge	2,386,371	2,357,002
System development charge	461,048	528,993
	70,830,149	69,261,559
Wastewater:		
Private	30,055,421	28,536,974
Government	9,591,225	9,764,431
Legislative surcharge	1,176,661	1,113,506
System development charge	424,465	541,992
	41,247,772	39,956,903
Other	679,465	519,529
Bad debts expense	(2,217,121)	(2,162,950)
Total operating revenues	110,540,265	107,575,041
Operating and maintenance expenses:		
Power purchases	16,150,781	14,686,486
Water purchases	6,277,864	8,684,974
Waste disposal fees	1,333,887	1,507,654
	23,762,532	24,879,114
Depreciation	21,174,220	19,280,249
Salaries, wages and benefits	21,030,363	18,534,508
Administrative and general	8,510,862	8,072,979
Contractual	5,945,478	5,036,651
Retiree healthcare costs and other benefits	2,267,681	8,548,967
Total operating and maintenance expenses	82,691,136	84,352,468
Operating income	27,849,129	23,222,573
Nonoperating revenues (expenses):		
Allowance for funds used during construction	11,307,192	12,501,196
Interest income	4,953,524	3,778,449
Interest expense	(25,795,133)	(26,498,040)
Loss on property, plant and equipment disposals	(2,698,053)	(1,945,630)
Federal expenditures	-	(746,644)
Others, net	(119,567)	(707,085)
Total nonoperating expenses, net	(12,352,037)	(13,617,754)
Income before capital contributions	15,497,092	9,604,819
Capital contributions:		
Grants from the U.S. Government	21,801,439	15,208,707
Change in net position	37,298,531	24,813,526
Net position at beginning of year	164,234,973	139,421,447
Net position at end of year	$ 201,533,504	$ 164,234,973

See accompanying notes to financial statements.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

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

	2019	2018
Cash flows from operating activities:		
Cash received from customers	$ 112,334,357	$ 106,626,761
Cash payments to suppliers for goods and services	(40,089,407)	(39,079,046)
Cash payments to employees for services	(22,071,345)	(21,508,696)
Cash payments for retiree healthcare costs	(3,457,157)	(3,447,544)
Net cash provided by operating activities	46,716,448	42,591,475
Cash flows from capital and related financing activities:		
Federal grants received	21,700,874	17,666,884
Acquisition of property, plant and equipment	(83,557,446)	(87,104,839)
Release of fund for 2010 bond series refunding	-	(2,532,527)
Principal paid on revenue bond maturities	(5,715,000)	(5,200,000)
Interest paid on revenue bonds	(25,653,416)	(23,194,207)
Principal repayment of bank loan	(3,209,916)	(3,042,463)
Interest paid on bank loan	(210,082)	(377,535)
Net cash used for capital and related financing activities	(96,644,986)	(103,784,687)
Cash flows from investing activities:		
Interest income received	4,953,524	3,778,449
Net change in cash and cash equivalents	(44,975,014)	(57,414,763)
Cash and cash equivalents at beginning of year	290,174,953	347,589,716
Cash and cash equivalents at end of year	$ 245,199,939	$ 290,174,953
Reconciliation of cash and cash equivalents to the statements of net position:		
Current assets:		
Cash and cash equivalents	$ 36,140,182	$ 32,833,499
Restricted cash and cash equvalents	37,890,369	37,066,661
Noncurrent assets:		
Restricted cash and cash equivalents	171,169,388	220,274,793
	$ 245,199,939	$ 290,174,953
Supplemental information on noncash activities:		
Noncash increase in property, plant and equipment	$ 11,307,192	$ 12,501,196
Capitalized interest	(11,307,192)	(12,501,196)
	$ -	$ -
Noncash federal expenditures	$ -	$ 746,644
Noncash grants from U.S. Government	-	(746,644)
	$ -	$ -

See accompanying notes to financial statements.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Statements of Cash Flows, Continued
Years Ended September 30, 2019 and 2018

	2019	2018
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	$ 27,849,129	$ 23,222,573
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	21,174,220	19,280,249
Bad debts expense	2,217,121	2,162,950
Loss on obsolescence	-	(393,239)
Non-cash pension costs	(1,108,026)	(1,384,990)
Non-cash OPEB costs	(1,189,476)	5,101,422
Increase in assets:		
Receivables	(534,280)	(3,262,199)
Materials and supplies inventory	(554,515)	(782,762)
Prepaid expenses	(989,987)	(126,701)
Increase (decrease) in liabilities:		
Accounts payable	65,044	303,098
Accrued payroll and employee benefits	33,518	(998,222)
Employee annual leave	(7,454)	79,154
Customer deposits	111,251	151,032
Other liabilities	(345,481)	(90,760)
DCRS sick leave liability	(4,616)	(670,130)
Net cash provided by operating activities	$ 46,716,448	$ 42,591,475

See accompanying notes to financial statements.

(1) Reporting Entity

The Guam Waterworks Authority (GWA) is a component unit of the Government of Guam (GovGuam). GWA is subject to the regulations of the Public Utilities Commission of Guam (PUC). GWA became an autonomous agency in 1996 under Public Law 23-119 and derives its revenues mainly from its water and wastewater system. The water system is engaged in the production, treatment, and distribution of water to villages and communities of Guam. The wastewater system is engaged in the collection and treatment of wastewater from residences and industries in the villages of Guam. GWA is governed by a five-member elected Consolidated Commission on Utilities (CCU). PUC determines such matters as rates and charges for services.

(2) Summary of Significant Accounting Policies

Basis of Accounting

GWA utilizes the flow of economic resources measurement focus. The financial statements are prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) as applied to governmental units using the accrual basis of accounting. Revenues are recognized when earned and expenses are recognized when incurred. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

Net Position

Net position represents the residual interest in GWA's assets and deferred outflows of resources after liabilities and deferred inflows of resources are deducted and consists of the following categories:

Net investment in capital assets – consists of capital assets, net of accumulated depreciation, and reduced by outstanding debt attributable to the acquisition, construction, or improvement of those assets, net of debt service reserve. Deferred outflows of resources that are attributable to related debt are also included in this component.

Restricted nonexpendable - net position subject to externally imposed stipulations that require GWA to maintain them permanently.

Restricted expendable - net position whose use is subject to externally imposed stipulations that can be fulfilled by actions of GWA pursuant to those stipulations or that expire with the passage of time.

Unrestricted - net position that is not subject to externally imposed stipulations. Unrestricted net position may be designated for specific purposes by action by management or the CCU or may otherwise be limited by contractual agreements with outside parties.

All of GWA's restricted net position is expendable. When both restricted and unrestricted resources are available for use, generally it is GWA's policy to use restricted resources first and the unrestricted resources when they are needed.

(2) Summary of Significant Accounting Policies, Continued

Net Position, Continued

At September 30, 2019 and 2018, restricted net position consists of the following:

	2019	2018
System Development Fund	$ 9,274,365	$ 10,184,847
Revenue Trust and Revenue Fund	9,024,013	7,123,854
Legislative Surcharge Fund	309,073	305,127
Sewer Hook-up Revolving Fund	67,095	65,500
	$ 18,674,546	$ 17,679,328

Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and deferred outflows of resources, liabilities and deferred inflows of resources, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Risk Management

GWA is exposed to various risks of loss; theft of, damage to, and destruction of assets; operation liability; errors and omissions; employee injuries and illnesses; natural disasters and employee health, dental and accident benefits. There is commercial insurance coverage obtained to provide for claims arising from most of these matters. No material losses have been sustained as a result of GWA's risk management practices during the past three years.

Allowance for Doubtful Accounts

The allowance for doubtful accounts is stated at an amount which management believes will be adequate to absorb possible losses on accounts receivable that may become uncollectible based on evaluations of the collectability of these accounts and prior collection experience. The allowance is established through a provision for bad debts charged to expense. Bad debts are written-off against the allowance based on the specific identification method.

Materials and Supplies Inventory

Materials and supplies inventory is stated at the lower of cost or market with cost determined by the first-in, first-out method.

Property, Plant and Equipment

Plant in service of $324,988,118 is stated at estimated historical cost as determined by an independent engineering consultant at September 30, 1998. Plant in service acquired subsequent to that date is stated at cost. Non-utility property and equipment are stated at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the respective assets. Current policy is to capitalize items over $5,000.

(2) Summary of Significant Accounting Policies, Continued

Noncurrent Restricted Cash and Cash Equivalents

The purpose of noncurrent restricted cash and cash equivalents is for long-term capital improvements and bond related activities.

Deferred Outflows of Resources

In addition to assets, the statements of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period and so will not be recognized as an outflow of resources (deduction of net position) until then. GWA has determined the loss on defeasance of the 2005 and 2010 series bonds, the difference between expected and actual experience with regard to economic or demographic factors in the measurement of the total pension liability, changes of assumptions, pension and OPEB contributions made subsequent to the measurement date, and changes in proportion and difference between GWA pension and OPEB contributions and proportionate share of contributions qualify for reporting in this category.

Deferred Inflows of Resources

In addition to liabilities, the statements of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (additions to net position) until then. GWA has determined the difference between expected and actual experience with regard to economic or demographic factors in the measurement of the total pension and OPEB liabilities, the net difference between projected and actual earnings on pension plan investments, changes of assumptions, and changes in proportion and differences between GWA pension and OPEB contributions and proportionate share of contributions qualify for reporting in this category.

Compensated Absences

Vesting annual leave is accrued and reported as an expense and a liability in the period earned. No liability is accrued for non-vesting sick leave benefits. Annual leave expected to be paid out within the next fiscal year is accrued and is included in current liabilities. The maximum accumulation of annual leave convertible to pay upon termination of employment is limited to 320 hours. Pursuant to Public Law 27-106, employees who have accumulated annual leave in excess of three hundred twenty (320) hours as of February 28, 2003, may carry over their excess and shall use the excess amount of leave prior to retirement or termination from service. Any unused leave over 320 hours shall be lost upon retirement.

Public Law 26-86 allows members of the Defined Contribution Retirement System (DCRS) to receive a lump sum payment of one-half of their accumulated sick leave upon retirement. A liability is accrued for estimated sick leave to be paid out to DCRS members upon retirement.

(2) Summary of Significant Accounting Policies, Continued

Pensions

Pensions are required to be recognized and disclosed using the accrual basis of accounting. GWA recognizes a net pension liability for the defined benefit pension plan in which it participates, which represents GWA's proportionate share of excess total pension liability over the pension plan assets – actuarially calculated – of a single employer defined benefit plan, measured one year prior to fiscal year-end and rolled forward. The total pension liability also includes GWA's proportionate share of the liability for ad hoc cost-of-living adjustments (COLA) and supplemental annuity payments that are anticipated to be made to defined benefit plan members and for anticipated future COLA payments to DCRS members. Changes in the net pension liability during the period are recorded as pension expense, or as deferred inflows of resources or deferred outflows of resources depending on the nature of the change, in the period incurred. Those changes in net pension liability that are recorded as deferred inflows of resources or deferred outflows of resources that arise from changes in actuarial assumptions or other inputs and differences between expected or actual experience are amortized over the weighted average remaining service life of all participants in the qualified pension plan and recorded as a component of pension expense beginning with the period in which they are incurred. Projected earnings on qualified pension plan investments are recognized as a component of pension expense. Differences between projected and actual investment earnings are reported as deferred inflows of resources or deferred outflows of resources and are amortized as a component of pension expense on a closed basis over a five-year period beginning with the period in which the difference occurred.

Other Postemployment Benefits (OPEB)

OPEB is required to be recognized and disclosed using the accrual basis of accounting. GWA recognizes an OPEB liability for the defined benefit OPEB plan in which it participates, which represents GWA's proportionate share of total OPEB liability - actuarially calculated - of a single employer defined benefit plan, measured one year prior to fiscal year-end and rolled forward. An OPEB trust has not been established, thus the OPEB plan does not presently report OPEB plan fiduciary net position. Instead, the OPEB plan is financed on a substantially "pay-as-you-go" basis.

Changes in the total OPEB liability during the period are recorded as OPEB expense, or as deferred inflows of resources or deferred outflows of resources depending on the nature of the change, in the period incurred. Those changes in total OPEB liability that are recorded as deferred inflows of resources or deferred outflows of resources that arise from changes in actuarial assumptions or other inputs and differences between expected or actual experience are amortized over the weighted average remaining service life of all participants in the qualified OPEB plan and recorded as a component of OPEB expense beginning with the period in which they are incurred.

Bond Premiums and Discounts

Bond premiums and discounts are amortized using the straight-line method, which approximates the effective yield method, over the life of the related bond issue.

(2) Summary of Significant Accounting Policies, Continued

Revenue Recognition

Customer water meters are read on a cyclical basis throughout a monthly period based on the route schedules of GWA. Revenue is recognized in the period that meters are read. Wastewater treatment is billed at a flat rate of $27.54 per month for residential accounts and 80% of current water consumption for commercial and government accounts. At the end of each month, unbilled revenues are accrued for each cycle based on the most recent cycle billing. Unbilled receivables at September 30, 2019 and 2018 are $3,289,089 and $2,989,322, respectively, and are included as receivables in the accompanying financial statements.

Cash and Cash Equivalents

For purposes of the statements of net position and of cash flows, cash and cash equivalents is defined as cash deposits in banks, time certificates of deposit, and short-term investments in U.S. Treasury obligations with initial maturities of three months or less.

Capitalization of Interest

GWA capitalizes interest on construction in progress based on the weighted average interest rate. During the years ended September 30, 2019 and 2018, interest of $11,307,192 and $12,501,196, respectively, was capitalized.

Capitalized Labor Costs

GWA capitalizes related labor costs incurred on construction in progress. During the years ended September 30, 2019 and 2018, labor costs of $3,342,006 and $3,553,764, respectively, were capitalized.

Operating and Non-Operating Revenue and Expenses

Operating revenues and expenses generally result directly from GWA's ongoing operations. Non-operating revenues and expenses result from capital and financing activities, costs and related recoveries from natural disasters, and certain other non-recurring income and expenses.

Grants and Contributions

Grants and contributions consist of government mandated and voluntary nonexchange transactions. Approved capital grants that have not been received approximate $170,103,256 and $57,962,029 at September 30, 2019 and 2018, respectively.

Income Taxes

As an instrumentality of GovGuam, GWA and all property acquired by or for GWA, and all revenues and income therefrom are exempt from taxation by GovGuam or by any political subdivision or public corporation thereof and from all taxes imposed under the authority of the Guam Legislature, or with respect to which the Guam Legislature is authorized to grant exemption.

Reclassifications

Certain balances in the 2018 presentation have been reclassified to conform to the 2019 presentation.

(2) Summary of Significant Accounting Policies, Continued

New Accounting Standards

During the year ended September 30, 2019, GWA implemented the following pronouncements:

- GASB Statement No. 83, *Certain Asset Retirement Obligations*, which addresses accounting and financial reporting for certain asset retirement obligations (AROs) associated with the retirement of a tangible capital asset.

- GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, which improves the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements.

The implementation of these statements did not have a material effect on GWA's financial statements. However, the implementation of GASB Statement No. 88 did result in additional required disclosures surrounding debt. See Note 6.

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*, which establishes criteria for identifying fiduciary activities of all state and local governments. The provisions in Statement No. 84 are effective for fiscal years beginning after December 15, 2018. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In June 2017, GASB issued Statement No. 87, *Leases*, which establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The provisions in Statement No. 87 are effective for fiscal years beginning after December 15, 2019. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. The provisions in Statement No. 89 are effective for fiscal years beginning after December 15, 2019. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

In August 2018, GASB issued Statement No. 90, *Majority Equity Interests - an Amendment of GASB Statements No. 14 and No. 61,* which improves the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and the relevance of financial statement information for certain component units. The provisions in Statement No. 90 are effective for fiscal years beginning after December 15, 2018. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations*, which clarifies the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. The provisions in Statement No. 91 are effective for fiscal years beginning after December 15, 2020. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

(3) Cash and Cash Equivalents

The bond indenture agreements for the 2010, 2013, 2014, 2016 and 2017 series revenue bonds require the establishment of special funds to be held and administered by trustees and by GWA. In addition, proceeds from borrowings to fund capital improvements are maintained by GWA in construction accounts. Funds in these accounts are required by loan agreement or public law to be used to fund capital improvements.

The deposits and investment policies of GWA are governed by 15 GCA 21, *Investments and Deposits*, in conjunction with applicable bond indentures. Authorized investments include obligations issued or guaranteed by the U.S. government or agencies of the U.S. government; bonds, notes or other indebtedness rated in the highest rating by Moody's Investors Service (Moody's) or Standard & Poor's Corporation (S&P); obligations issued by the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation with remaining maturities of not more than three years; any bonds or other obligations of any state of the U.S. or any agency, instrumentality or local government unit of such state which are rated in the highest rating category of either Moody's or S&P; demand and time deposits in or certificates of deposit or bankers acceptances with U.S. domestic banks which have a rating of their short term certificates of deposit of A-1 or better by S&P and P-1 by Moody's and mature no more than 360 days after purchase; commercial paper which is rating in the highest classification by S&P and Moody's; and money market funds rated AAA or better by S&P.

Custodial credit risk is the risk that in the event of a bank failure, GWA's deposits may not be returned to it. Such deposits are not covered by depository insurance and are either uncollateralized, collateralized with securities held by the pledging financial institution, or held by the pledging financial institution but not in the depositor-government's name. GWA does not have a deposit policy for custodial credit risk.

As of September 30, 2019 and 2018, the carrying amount of GWA's total cash and cash equivalents was $245,199,939 and $290,174,953, respectively, and the corresponding bank balances were $246,737,620 and $290,747,962, respectively. Of the bank balance amount, $12,985,180 and $10,047,143, respectively, is maintained in financial institutions subject to Federal Deposit Insurance Corporation (FDIC) insurance. The remaining amount of $233,752,440 and $280,700,819, respectively, represents short-term investments held and administered by GWA's trustees in GWA's name in accordance with various trust agreements and bond indentures. As of September 30, 2019 and 2018, bank deposits in the amount of $765,158 and $635,502, respectively, were FDIC insured. GWA does not require collateralization of its cash deposits; therefore, deposit levels in excess of FDIC insurance coverage are uncollateralized. At September 30, 2019 and 2018, $12,220,022 and $9,411,641, respectively, of cash and cash equivalents are subject to custodial credit risk.

Unrestricted cash and cash equivalents at September 30, 2019 and 2018 in the amount of $13,933,323 and $13,666,109, respectively, are subject to internally imposed restrictions by the CCU to provide additional liquidity to assist GWA in addressing unforeseen obligations and unexpected short-term cash flow demands and $17,244,823 and $16,073,011, respectively, are subject to internally imposed restrictions by the CCU to fund capital expenditures.

Restricted cash and cash equivalents consist of cash received for specific capital projects and for bond indenture related accounts. The working capital funds are internally imposed restrictions and are not subject to externally imposed stipulations.

(3) Cash and Cash Equivalents, Continued

The composition of restricted cash and cash equivalents is as follows:

	2019	2018
Current restricted:		
Sewer Hook-up Revolving Fund	$ 67,094	$ 65,499
Legislative Surcharge Fund	309,073	305,127
Bid Escrow Fund	836,528	660,254
Customer Deposit Fund	1,871,553	1,860,120
Revenue Trust and Revenue Fund	9,024,013	7,123,854
System Development Fund	9,274,365	10,184,847
Working Cap – Reserved for DS	12,422,969	12,201,200
Working Cap – Reserved for CAPEX	1,001,292	1,582,278
Working Cap – Reserved for O&M	3,083,482	3,083,482
	37,890,369	37,066,661
Noncurrent restricted:		
2010 Bond Indenture Funds:		
Construction Fund	6,313,750	6,753,709
Bond Reserve Fund	7,566,460	7,566,460
Reserved for Debt Service	523,353	503,751
2013 Bond Indenture Funds:		
Construction Fund	14,170,759	36,222,062
Bond Reserve Fund	12,031,688	12,031,688
Reserved for Debt Service	3,082,212	2,360,451
2014 Bond Indenture Funds:		
Operations, Maintenance, Renewal and Replacement Reserve Fund	17,423,213	17,423,213
Construction Fund	217,448	741,896
Bond Reserve Fund	7,798,212	7,972,243
Reserved for Debt Service	1,885,637	1,833,235
2016 Bond Indenture Funds:		
Construction Fund	89,235,554	116,036,000
Bond Reserve Fund	7,591,999	7,594,603
Reserved for Debt Service	1,946,774	1,805,555
2017 Bond Indenture Funds:		
Reserved for Debt Service	1,382,329	1,429,927
	171,169,388	220,274,793
Total restricted cash and cash equivalents	$ 209,059,757	$ 257,341,454

(4) Receivables

Receivables at September 30, 2019 and 2018 are as follows:

	2019	2018
Customers:		
Private	$ 18,478,116	$ 17,503,153
Government	3,620,370	4,748,822
	22,098,486	22,251,975
Federal grants receivable	3,711,435	3,837,148
Guam Power Authority	464,473	616,350
Other	1,172,501	589,213
	27,446,895	27,294,686
Less allowance for doubtful accounts:		
Private	(6,718,093)	(4,446,958)
Government	(1,071,850)	(1,069,119)
	(7,789,943)	(5,516,077)
	$ 19,656,952	$ 21,778,609

During the years ended September 30, 2019 and 2018, GWA reduced $539,381 and $9,265,969, respectively, of long outstanding receivables against the allowance for doubtful accounts.

Substantially all customer receivables are from individuals, businesses and government agencies located on Guam.

(5) Property, Plant and Equipment

Capital asset activities for the year ended September 30, 2019 are as follows:

	Estimated Useful Lives in Years	Beginning Balance October 1, 2018	Transfers and Additions	Transfers and Deletions	Ending Balance September 30, 2019
Depreciable:					
Utility Plant in Service – Water	10-50	$ 348,812,303	$ 37,818,936	$ (5,146,616)	$ 381,484,623
Utility Plant in Service - Wastewater	25-50	300,053,427	129,843,152	-	429,896,579
General Fixed Assets	5-10	21,720,023	1,664,302	(183,700)	23,200,625
		670,585,753	169,326,390	(5,330,316)	834,581,827
Accumulated Depreciation		(303,019,447)	(21,174,220)	2,632,264	(321,561,403)
		367,566,306	148,152,170	(2,698,052)	513,020,424
Non-depreciable:					
Land		3,681,120	233,695	-	3,914,815
Construction Work in Progress		178,443,926	87,316,163	(165,597,583)	100,162,506
		$ 549,691,352	$ 235,702,028	$ (168,295,635)	$ 617,097,745

(5) Property, Plant and Equipment, Continued

Capital asset activities for the year ended September 30, 2018 are as follows:

	Estimated Useful Lives in Years	Beginning Balance October 1, 2017	Transfers and Additions	Transfers and Deletions	Ending Balance September 30, 2018
Depreciable:					
Utility Plant in Service – Water	10-50	$ 327,484,191	$ 25,481,834	$ (4,153,722)	$ 348,812,303
Utility Plant in Service - Wastewater	25-50	286,394,940	13,754,777	(96,290)	300,053,427
General Fixed Assets	5-10	18,938,255	2,781,768	-	21,720,023
		632,817,386	42,018,379	(4,250,012)	670,585,753
Accumulated Depreciation		(286,043,580)	(19,280,249)	2,304,382	(303,019,447)
		346,773,806	22,738,130	(1,945,630)	367,566,306
Non-depreciable:					
Land		1,110,998	2,570,122	-	3,681,120
Construction Work in Progress		111,695,887	109,129,184	(42,381,145)	178,443,926
		$ 459,580,691	$ 134,437,436	$ (44,326,775)	$ 549,691,352

(6) Long-Term Debt

Long-term debt at September 30, 2019 and 2018 is as follows:

	2019	2018
Revenue Bonds:		
2010 Series revenue bonds, interest at varying rates from 4% to 5.5% per annum, payable semiannually in January and July, principal and mandatory sinking fund payments in varying annual installments commencing with a payment of $1,055,000 in July 2015, increasing to $14,460,000 in July 2040. On December 13, 2017, these bonds were partially refunded through the issuance of $107,660,000 2017 refunding bonds.	$ 1,895,000	$ 3,695,000
2013 Series revenue bonds, interest at varying rates from 5% to 5.5% per annum, payable semiannually in January and July, principal and mandatory sinking fund payments in varying annual installments commencing with a payment of $2,695,000 in July 2020, increasing to $25,880,000 in July 2043.	172,630,000	172,630,000

(6) Long-Term Debt, Continued

Revenue Bonds, Continued:

2014 Series refunding bonds, interest at varying rates from 5% to 6% per annum, payable semiannually in January and July, principal and mandatory sinking fund payments in varying annual installments commencing with a payment of $2,900,000 in July 2015, maturity date in July 2035.	68,900,000	72,520,000
2016 Series revenue bonds, interest at 5% per annum, payable semiannually in January and July, principal and mandatory sinking fund payments in varying annual installments commencing with a payment of $420,000 in July 2020, maturity date in January 2046.	143,310,000	143,310,000
2017 Series refunding bonds, interest at 5% per annum, payable semiannually in January and July, principal and mandatory sinking fund payments in varying annual installments commencing with a payment of $290,000 in July 2019, maturity date in July 2040.	107,365,000	107,660,000
Total revenue bonds payable	494,100,000	499,815,000
Less current maturities	(8,770,000)	(5,715,000)
	485,330,000	494,100,000
Bond premium – 2017 series bonds	12,781,211	13,394,710
Bond premium – 2016 series bonds	16,047,986	16,655,480
Bond premium – 2014 series bonds, net	4,270,945	4,538,080
Bond discount – 2013 series bonds	(1,236,552)	(1,287,651)
	$ 517,193,590	$ 527,400,619

Annual debt service requirements to maturity for principal and interest are as follows:

Year ending September 30,	Principal	Interest	Total
2020	$ 8,770,000	$ 25,405,188	$ 34,175,188
2021	9,270,000	24,959,950	34,229,950
2022	9,745,000	24,489,350	34,234,350
2023	10,235,000	23,994,625	34,229,625
2024	10,760,000	23,745,013	34,235,013
2025 through 2029	62,495,000	108,664,775	171,159,775
2030 through 2034	79,960,000	91,204,675	171,164,675
2035 through 2039	102,665,000	68,497,625	171,162,625
2040 through 2044	135,335,000	38,447,875	173,782,875
2045 through 2046	64,865,000	4,073,875	68,938,875
	$ 494,100,000	$ 433,212,951	$ 927,312,951

(6) Long-Term Debt, Continued

Direct Borrowings:

	2019	2018
Note payable to a bank, interest at 7.75% per annum, due in monthly installments of principal and interest of $300,027 through June 2015; refinanced principal balance of $14,856,080, interest at 5.25% per annum, due in monthly installments of principal and interest of $285,000 through June 2020. The proceeds of the loan funded a portion of the cost of a moratorium project.	$ 2,319,108	$ 5,529,024
Less current maturities	(2,319,108)	(3,203,870)
	$ -	$ 2,325,154

Annual debt service requirements to maturity for principal and interest are as follows:

Year ending September 30,	Principal	Interest	Total
2020	$ 2,319,108	$ 50,692	$ 2,369,800

Changes in GWA's long-term debt for the years ended September 30, 2019 and 2018 are as follows:

	Outstanding October 1, 2018	Increases	Decreases	Outstanding September 30, 2019	Current
Revenue Bonds:					
2010 series A bonds	$ 3,695,000	$ -	$ (1,800,000)	$ 1,895,000	$ 1,895,000
2013 series A bonds	172,630,000	-	-	172,630,000	2,695,000
2014 series A and B bonds	72,520,000	-	(3,620,000)	68,900,000	3,760,000
2016 series A bonds	143,310,000	-	-	143,310,000	420,000
2017 series A bonds	107,660,000	-	(295,000)	107,365,000	-
	499,815,000	-	(5,715,000)	494,100,000	8,770,000
Direct Borrowings:					
Bank loan	5,529,024	-	(3,209,916)	2,319,108	2,319,108
	$ 505,344,024	$ -	$ (8,924,916)	$ 496,419,108	$ 11,089,108

	Outstanding October 1, 2017	Increases	Decreases	Outstanding September 30, 2018	Current
Revenue Bonds:					
2010 series A bonds	$ 114,525,000	$ -	$ (110,830,000)	$ 3,695,000	$ 1,800,000
2013 series A bonds	172,630,000	-	-	172,630,000	-
2014 series A and B bonds	75,995,000	-	(3,475,000)	72,520,000	3,620,000
2016 series A bonds	143,310,000	-	-	143,310,000	-
2017 series A bonds	-	107,660,000	-	107,660,000	295,000
	506,460,000	107,660,000	(114,305,000)	499,815,000	5,715,000
Direct Borrowings:					
Bank loan	8,571,487	-	(3,042,463)	5,529,024	3,203,870
	$ 515,031,487	$ 107,660,000	$ (117,347,463)	$ 505,344,024	$ 8,918,870

(6) Long-Term Debt, Continued

Revenue Bonds

Series 2010, Water and Wastewater System Revenue Bonds, dated November 1, 2010, were issued in the original principal amount of $118,825,000 to finance various water and wastewater capital improvement projects. Total bond proceeds were $116,404,591, net of a bond discount of $2,420,409, with closing costs of $2,805,108. The bond discount has been deferred and amortized on a straight line basis over the average remaining life of the 2010 bonds. Proceeds of the 2010 series bonds are to be used for the purpose of funding capital improvements of water and wastewater systems, meeting certain requirements of the U.S. Environmental Protection Agency, paying capitalized interest, funding a Bond Reserve Fund deposit, and paying related issuance costs.

Series 2013, Water and Wastewater System Revenue Bonds, dated December 12, 2013, were issued in the original principal amount of $172,630,000 to finance capital improvement projects in connection with the financing of its 5-year Capital Improvement Plan. A portion of the bond proceeds was used to fund certain bond reserves, pay for capitalized interest and costs in connection with the issue but, for the most part, the proceeds are to be used to fund capital improvements. Total bond proceeds were $171,097,017, net of a bond discount of $1,532,983, with closing costs of $2,961,409. The bond discount has been deferred and amortized on a straight line basis over the average remaining life of the 2013 bonds.

Series 2014, Water and Wastewater System Revenue Bonds, dated August 7, 2014, were issued in the original principal amount of $85,600,000 to refund all of GWA's outstanding Guam Waterworks Authority Water and Wastewater Revenue Bonds, Series 2005, and to pay costs of issuing the 2014 Bonds. The proceeds for the refunding were transferred to an escrow agent who used the proceeds to purchase U.S. Treasury Securities which are to be held by the escrow agent in an irrevocable trust to pay the redemption price of the 2005 bonds and interest thereon to become due on or prior to July 1, 2015 (redemption date). The advance refunding met the requirements of an in-substance defeasance and the 2005 bonds were removed from the accompanying financial statements. The advance refunding resulted in a loss on defeasance of $2,468,670 representing the difference between the reacquisition price and the carrying amount of the 2005 bonds. Although the advance refunding resulted in the recognition of an accounting loss, GWA in effect reduced its aggregate debt service payments by $13,873,732 over twenty years and obtained an economic gain (difference between the present values of the old debt and the new debt service payments) of $8,352,503. The unamortized balance of the deferred loss on refunding of the 2005 Series bonds as of September 30, 2019 and 2018 totals $1,414,418 and $1,546,658, respectively. Total bond proceeds were $92,533,037, and included a bond premium of $5,648,970 and funds from deposit in 2005 Bond Fund and Bond Reserve Fund of $1,284,068, with closing costs of $1,536,177. The bond premium has been deferred and amortized on a straight line basis over the average remaining life of the 2014 bonds.

Series 2016, Water and Wastewater System Revenue Bonds, dated February 9, 2016, were issued in the original principal amount of $143,310,000 to finance capital improvement projects in connection with the financing of its 5-year Capital Improvement Plan. A portion of the bond proceeds was used to fund certain bond reserves, pay for capitalized interest and costs in connection with the issue but, for the most part, the proceeds are to be used to fund capital improvements. Total bond proceeds were $161,534,842, including a bond premium of $18,224,842, with closing costs of $2,467,854. The bond premium has been deferred and amortized on a straight line basis over the average remaining life of the 2016 bonds.

(6) Long-Term Debt, Continued

Revenue Bonds, Continued

Series 2017, Water and Wastewater System Revenue Bonds, dated December 13, 2017, were issued in the original principal amount of $107,660,000 to refund a portion of the outstanding Series 2010 bonds. The proceeds for the refunding were transferred to an escrow agent who used the proceeds to purchase U.S. Treasury Securities which are to be held by the escrow agent in an irrevocable trust to pay the redemption price of the 2010 bonds and interest thereon to become due on or prior to July 1, 2019 (redemption date). The advance refunding met the requirements of an in-substance defeasance and the 2010 bonds were removed from the accompanying financial statements. The advance refunding resulted in a loss on defeasance of $11,791,115 representing the difference between the reacquisition price and the carrying amount of the 2010 bonds. Although the advance refunding resulted in the recognition of an accounting loss, GWA in effect reduced its aggregate debt service payments by $14,870,141 over twenty-three years and obtained an economic gain (difference between the present values of the old debt and the new debt service payments) of $10,438,103. The unamortized balance of the deferred loss on refunding of the 2010 Series bonds as of September 30, 2019 and 2018 totals $10,561,962 and $11,264,129, respectively. Total bond proceeds were $122,155,917, and included a bond premium of $13,854,833 and funds from deposit in 2010 Bond Fund and Bond Reserve Fund of $2,532,528, with closing costs of $1,775,257. The bond premium has been deferred and amortized on a straight line basis over the average remaining life of the 2017 bonds.

Direct Borrowings and Direct Placements

All of GWA's outstanding bonds are public offerings sold through competitive sale. GWA has direct borrowings outstanding representing a loan negotiated directly with a bank. GWA's outstanding note from direct borrowings, dated June 15, 2010, in the original principal amount of $25,000,000 is secured with a pledge and assignment of GWA system revenue but subject first, to a consent decree, and subordinate to the prior pledge and lien of the General Indenture. In addition, the note contains a provision that in an event of default, the entire outstanding amount may immediately become due and payable at the option of the bank. At September 30, 2019 and 2018, GWA does not have any unused lines of credit or have any assets pledged as collateral.

Pledged Revenues

The 2010, 2013, 2014, 2016 and 2017 Series Bonds are limited obligations of GWA and are payable solely from, and secured solely by a lien on and pledge of, GWA system revenues (excluding legislative surcharges and system development charges) to secure the payment of principal and interest on the Bonds. As of September 30, 2019, total principal and interest remaining on these bonds is approximately $927,312,951 payable through January 2046. For the years ended September 30, 2019 and 2018, debt service paid on these bonds was $31,368,416 and $28,394,207, respectively, and total pledged GWA system revenues were $107,629,376 and $104,676,969, respectively.

Prior-Year Defeasance of Debt

In prior years, GWA defeased certain revenue bonds by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payouts on the old bonds. Accordingly, the trust account assets and the liabilities for the defeased bonds are not included in GWA's financial statements. At September 30, 2019 and 2018, bonds outstanding of $109,105,000 are considered defeased.

(6) Long-Term Debt, Continued

Bond Covenants

The General Indenture, dated December 1, 2005, as updated by supplemental indentures, sets forth the establishment of accounts, the application of revenues, and certain other covenants to ensure proper operation and maintenance of the water and wastewater system and payment of debt service. Management believes GWA was in compliance with all bond covenants as of and for the years ended September 30, 2019 and 2018. The primary requirements of the General Indenture are summarized below:

Rate Covenant - GWA has covenanted to at all times fix, prescribe and collect rates, fees and charges in connection with the services furnished by the water and wastewater system which will be sufficient to yield the sum of net revenues during each fiscal year equal to at least 125% of the annual debt service for such fiscal year. Net revenues are defined generally as all GWA system revenues (excluding legislative surcharges, system development charges and Federal grants) less operating and maintenance expenses (excluding depreciation and amortization charges and certain extraordinary, nonrecurring expenses).

Operation and Maintenance Funds - the General Indenture creates an Operation and Maintenance Fund, available for working capital purposes, and the Operation, Maintenance, Renewal and Replacement Reserve Fund, available for emergency renewals, replacements and other contingency items. With respect to the Operation and Maintenance Fund, GWA must maintain a balance in such account equal to the amount of operation and maintenance expenses budgeted by GWA to be paid from revenues during the next succeeding calendar month. With respect to the Operation, Maintenance, Renewal and Replacement Reserve Fund, GWA must maintain a balance in such account equal to one-fourth of the budgeted sum for the then current fiscal year.

Debt Service Fund - the General Indenture creates a Debt Service Fund available for the purpose of: (1) paying interest on bonds as it shall become due and payable; (2) paying the principal of Serial Bonds when due and payable; (3) purchasing or redeeming or paying at maturity Term Bonds; (4) paying Parity Payment Agreement Payments due and payable; and (5) paying Credit Agreement Reimbursement Payments due and payable. As of September 30, 2019 and 2018, GWA is not currently a party to any Parity Payment Agreements.

Bond Reserve Fund - the General Indenture created a Bond Reserve Fund available for the purpose of paying debt service on Bonds (including Payment Agreement Payments) in the event of a deficiency in the Debt Service Fund. GWA is required to maintain an amount within the Bond Reserve Fund equal to the maximum annual debt service for the then current or future fiscal year on all outstanding bonds.

Events of default with finance related consequences - the General Indenture specifies a number of Events of Default and related remedies. In the event that the amount in any Fund or Account is insufficient for the purposes for which such Fund or Account was established, the Trustee shall transfer such amount as is necessary to satisfy such deficiency. If after making all such transfers, the amount in the Debt Service Fund is insufficient, the Trustee shall promptly issue a notice of default to Bondholders.

Acceleration - the remedies granted to the Trustee and the Bondholders under the General Indenture do not include any right to accelerate the payment of the outstanding bonds. The Trustee is authorized to take certain actions upon the occurrence of an event of default, including proceedings to enforce the rights of Bondholders as outlined in the General Indenture.

(7) Change in Other Long-Term Liabilities

Changes in GWA's other long-term liabilities for the years ended September 30, 2019 and 2018 are as follows:

	Outstanding October 1, 2018	Increases	Decreases	Outstanding September 30, 2019	Current
Other:					
Employee annual leave	$ 1,430,203	$ -	$ (7,454)	$ 1,422,749	$ 616,114
DCRS sick leave liability	1,059,161	-	(4,616)	1,054,545	-
Net pension liability	45,451,352	4,141,819	-	49,593,171	-
OPEB liability	88,950,661	-	(26,294,256)	62,656,405	-
	$ 136,891,377	$ 4,141,819	$ (26,306,326)	$ 114,726,870	$ 616,114

	Outstanding October 1, 2017	Increases	Decreases	Outstanding September 30, 2018	Current
Other:					
Employee annual leave	1,351,049	$ 1,134,888	$ (1,055,734)	$ 1,430,203	$ 607,382
DCRS sick leave liability	1,729,291	-	(670,130)	1,059,161	-
Net pension liability	49,243,800	-	(3,792,448)	45,451,352	-
OPEB liability	93,748,336	-	(4,797,675)	88,950,661	-
	$ 679,965,356	$ 1,134,888	$ (10,315,987)	$ 136,891,377	$ 607,382

(8) Pensions

GWA is statutorily responsible for providing pension benefits for GWA employees through the GovGuam Retirement Fund (GGRF).

A. General Information About the Pension Plans:

Plan Description: GGRF administers the GovGuam Defined Benefit (DB) Plan, a single-employer defined benefit pension plan, and the Defined Contribution Retirement System (DCRS). The DB Plan provides retirement, disability, and survivor benefits to plan members who enrolled in the plan prior to October 1, 1995. Article 1 of 4 GCA 8, Section 8105, requires that all employees of GovGuam, regardless of age or length of service, become members of the DB Plan prior to the operative date. Employees of a public corporation of GovGuam, which includes GWA, have the option of becoming members of the DB Plan prior to the operative date. All employees of GovGuam, including employees of GovGuam public corporations, whose employment commences on or after October 1, 1995, are required to participate in the Defined Contribution Retirement System (DCRS) Plan. Hence, the DB Plan became a closed group.

Members of the DB Plan who retired prior to October 1, 1995, or their survivors, are eligible to receive annual supplemental annuity payments. In addition, retirees under DB and DCRS Plans are eligible to receive an annual ad hoc cost of living allowance (COLA).

A single actuarial valuation is performed annually covering all plan members and the same contribution rate applies to each employer. GGRF issues a publicly available financial report that includes financial statements and required supplementary information for the DB Plan. That report may be obtained by writing to the Government of Guam Retirement Fund, 424 A Route 8, Maite, Guam 96910, or by visiting GGRF's website – www.ggrf.com.

(8) Pensions, Continued

A. General Information About the Pension Plans, Continued:

Plan Membership: As of September 30, 2018 (the measurement date), plan membership consisted of the following:

DB members:	
Inactive employees or beneficiaries currently receiving benefits	7,273
Inactive employees entitled to but not yet receiving benefits	3,170
Active employees	5,188
	15,631
DCRS members:	
Active employees	5,921
	21,552

Benefits Provided: The DB Plan provides pension benefits to retired employees generally based on age and/or years of credited service and an average of the three highest annual salaries received by a member during years of credited service, or $6,000, whichever is greater. Members who joined the DB Plan prior to October 1, 1981 may retire with 10 years of service at age 60 (age 55 for uniformed personnel); or with 20 to 24 years of service regardless of age with a reduced benefit if the member is under age 60; or upon completion of 25 years of service at any age. Members who joined the DB Plan on or after October 1, 1981 and prior to August 22, 1984 may retire with 15 years of service at age 60 (age 55 for uniformed personnel); or with 25 to 29 years of service regardless of age with a reduced benefit if the member is under age 60; or upon completion of 30 years of service at any age.

Members who joined the DB Plan after August 22, 1984 and prior to October 1, 1995 may retire with 15 years of service at age 65 (age 60 for uniformed personnel); or with 25 to 29 years of service regardless of age with a reduced benefit if the member is under age 65; or upon completion of 30 years of service at any age. Upon termination of employment before attaining at least 25 years of total service, a member is entitled to receive a refund of total contributions including interest. A member who terminates after completing at least 5 years of service has the option of leaving contributions in the GGRF and receiving a service retirement benefit upon attainment of the age of 60 years. In the event of disability during employment, members under the age of 65 with six or more years of credited service who are not entitled to receive disability payments from the United States Government are eligible to receive sixty six and two-thirds of the average of their three highest annual salaries received during years of credited service. The DB Plan also provides death benefits.

Supplemental annuity benefit payments are provided to DB retirees in the amount of $4,238 per year, but not to exceed $40,000 per year when combined with their regular annual retirement annuity. Annual COLA payments are provided to DB and DCRS retirees in a lump sum amount of $2,000. Both supplemental annuity benefit payments and COLA payments are made at the discretion of the Guam Legislature, but are funded on a "pay-as-you-go" basis so there is no plan trust. It is anticipated that ad hoc COLA and supplemental annuity payments will continue to be made for future years at the same level currently being paid.

(8) Pensions, Continued

A. General Information About the Pension Plans, Continued:

On September 20, 2016, the Guam Legislature enacted Public Law 33-186, which created two new government retirement plans; the DB 1.75 Plan and the Government of Guam Retirement Security Plan (GRSP). Commencing April 1, 2017 through September 30, 2018, eligible employees may elect, during the "election window", to participate in the DB 1.75 Plan or the GRSP with an effective date of January 1, 2018. Beginning January 1, 2018, all new employees shall be automatically enrolled in the GRSP. New employees have sixty (60) days from the date of hire to elect to participate in the DCRS.

The DB 1.75 Plan is open for participation by certain existing employees, new employees, and reemployed employees who would otherwise participate in the DC Plan or the new GRSP and who make election on a voluntary basis to participate in the DB 1.75 Plan by December 31, 2017. Employee contributions are made by mandatory pre-tax payroll deduction at the rate of 9.5% of the employee's base salary while employer contributions are actuarially determined. Members of the DB 1.75 Plan automatically participate in the GovGuam deferred compensation plan, pursuant to which employees are required to contribute 1% of base salary as a pre-tax mandatory contribution. Benefits are fully vested upon attaining 5 years of credited service.

Members of the DB 1.75 Plan may retire at age 62 with 5 years of credited service, or at age 60 with 5 years of credited service without survivor benefits, or at age 55 with 25 years of credited service but the retirement annuity shall be reduced ½ of 1% for each month that the age of the member is less than 62 years (6% per year). Credited service is earned for each year of actual employment by the GovGuam as an employee. Upon retirement, a retired member is entitled to a basic retirement annuity equal to an annual payment of 1.75% of average annual salary multiplied by years of credited service. Average annual salary means the average of annual base salary for the three years of service that produce the highest average.

Contributions and Funding Policy: Contribution requirements of participating employers and active members to the DB Plan are determined in accordance with Guam law. Employer contributions are actuarially determined under the One-Year Lag Methodology. Under this methodology, the actuarial valuation date is used for calculating the employer contributions for the second following fiscal year. For example, the September 30, 2017 actuarial valuation was used for determining the year ended September 30, 2019 statutory contributions. Member contributions are required at 9.52% of base pay.

(8) Pensions, Continued

A. General Information About the Pension Plans, Continued:

As a result of actuarial valuations performed as of September 30, 2017, 2016 and 2015, contribution rates required to fully fund the Retirement Fund liability, as required by Guam law, for the years ended September 30, 2019, 2018 and 2017, respectively, have been determined as follows:

	2019	2018	2017
Normal costs (% of DB Plan payroll)	13.54%	15.97%	16.27%
Employee contributions (DB Plan employees)	9.52%	9.55%	9.55%
Employer portion of normal costs (% of DB Plan payroll)	4.02%	6.42%	6.72%
Employer portion of normal costs (% of total payroll)	2.29%	1.60%	1.87%
Unfunded liability cost (% of total payroll)	21.29%	22.12%	21.60%
Government contribution as a % of total payroll	23.58%	23.72%	23.47%
Statutory contribution rates as a % of DB Plan payroll:			
Employer	26.56%	27.83%	27.41%
Employee	9.52%	9.55%	9.55%

GWA's contributions to the DB Plan for the years ended September 30, 2019, 2018 and 2017 were $2,007,437, $1,745,130 and $736,380, respectively, which were equal to the statutorily required contributions for the respective years then ended.

GWA's contributions for supplemental annuity benefit and COLA payments for the years ended September 30, 2019, 2018 and 2017 were $968,706, $966,706 and $919,780, respectively, which were equal to the statutorily required contributions for the respective years then ended.

Members of the DCRS plan, who have completed five years of government service, have a vested balance of 100% of both member and employer contributions plus any earnings thereon.

Contributions into the DCRS plan by members are based on an automatic deduction of 5% of the member's regular base pay, which increased to 6.2% effective January 1, 2018. The contribution is periodically deposited into an individual annuity account within the DCRS. Employees are afforded the opportunity to select from different annuity accounts available under the DCRS.

Statutory employer contributions for the DCRS plan for the years ended September 30, 2019 and 2018 are determined using the same rates as the DB Plan. Of the amount contributed by the employer, only 5% of the member's regular pay is deposited into the DCRS, which increased to 6.2% effective January 1, 2018. The remaining amount is contributed towards the unfunded liability of the defined benefit plan.

GWA's contributions to the DCRS Plan for the years ended September 30, 2019, 2018 and 2017 were $3,214,699, $2,795,312 and $3,376,521, respectively, which were equal to the required contributions for the respective years then ended. Of these amounts, $2,618,445, $2,214,238 and $2,763,791 were contributed towards the unfunded liability of the DB Plan for the years ended September 30, 2019, 2018 and 2017, respectively.

(8) Pensions, Continued

B. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions:

Pension Liability: At September 30, 2019 and 2018, GWA reported a net pension liability for its proportionate share of the net pension liabilities measured as of September 30, 2018 and 2017, respectively, which is comprised of the following:

	2019	2018
Defined Benefit Plan	$ 37,292,034	$ 33,100,479
Ad Hoc COLA/supplemental annuity Plan for DB retirees	11,195,277	10,909,240
Ad Hoc COLA Plan for DCRS retirees	1,105,860	1,441,633
	$ 49,593,171	$ 45,451,352

GWA's proportion of the GovGuam net pension liabilities was based on GWA's expected plan contributions relative to the total expected contributions received by the respective pension plans for GovGuam and GovGuam's component units. At September 30, 2019 and 2018, GWA's proportionate shares of the GovGuam net pension liabilities were as follows:

	2019	2018
Defined Benefit Plan	3.16%	2.90%
Ad Hoc COLA/supplemental annuity Plan for DB retirees	3.86%	3.79%
Ad Hoc COLA Plan for DCRS retirees	2.24%	2.31%

Pension Expense: For the years ended September 30, 2019 and 2018, GWA recognized pension expense for its proportionate share of plan pension expense from the above pension plans as follows:

	2019	2018
Defined Benefit Plan	$ 5,493,408	$ (729,782)
Ad Hoc COLA/supplemental annuity Plan for DB retirees	1,198,898	2,889,975
Ad Hoc COLA Plan for DCRS retirees	(307,073)	111,678
	$ 6,385,233	$ 2,271,871

(8) Pensions, Continued

B. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions, Continued:

Deferred Outflows and Inflows of Resources: At September 30, 2019 and 2018, GWA reported total deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	2019					
	Defined Benefit Plan		Ad Hoc COLA/ Supplemental Annuity Plan for DB Retirees		Ad Hoc COLA Plan for DCRS Retirees	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ 105,244	$ -	$ 165,635	$ -	$ 158,884	$ 10,106
Net difference between projected and actual earnings on pension plan investments	-	668,529	-	-	-	-
Changes of assumptions	-	-	-	371,579	131,707	147,598
Contributions subsequent to the measurement date	5,222,135	-	928,706	-	40,000	-
Changes in proportion and difference between GWA contributions and proportionate share of contributions	2,144,565	-	148,542	-	12,081	246,932
	$ 7,471,944	$ 668,529	$ 1,242,883	$ 371,579	$ 342,672	$ 404,636

	2018					
	Defined Benefit Plan		Ad Hoc COLA/ Supplemental Annuity Plan for DB Retirees		Ad Hoc COLA Plan for DCRS Retirees	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ -	$ -	$ -	$ -	$ 65,501	$ 11,199
Net difference between projected and actual earnings on pension plan investments	-	1,608,640	-	-	-	-
Changes of assumptions	-	-	-	-	145,600	95,879
Contributions subsequent to the measurement date	2,842,417	-	926,706	-	40,000	-
Changes in proportion and difference between GWA contributions and proportionate share of contributions	199,851	-	-	44,545	-	96,901
	$ 3,042,268	$ 1,608,640	$ 926,706	$ 44,545	$ 251,101	$ 203,979

Deferred outflows resulting from contributions subsequent to measurement date will be recognized as reduction of the net pension liability in the following year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at September 30, 2019 will be recognized in pension expense as follows:

(8) Pensions, Continued

B. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions, Continued:

Year Ending September 30	Defined Benefit Plan	Ad Hoc COLA/ Supplemental Annuity Plan for DB Retirees	Ad Hoc COLA Plan for DCRS Retirees
2020	$ 1,144,787	$ (57,402)	$ (14,535)
2021	498,387	-	(14,535)
2022	(235,508)	-	(14,535)
2023	173,614	-	(14,535)
2024	-	-	(14,535)
Thereafter	-	-	(29,289)
	$ 1,581,280	$ (57,402)	$ (101,964)

Actuarial Assumptions: Actuarially determined contribution rates for the DB Plan are calculated as of September 30, two years prior to the end of the fiscal year in which contributions are reported. The methods and assumptions used to determine contribution rates are as follows:

Valuation Date:	September 30, 2017
Actuarial Cost Method:	Entry age normal
Amortization Method:	Level percentage of payroll, closed
Remaining Amortization Period:	May 1, 2033 (15.58 years remaining as of September 30, 2017)
Asset Valuation Method:	3-year smoothed market value (effective September 30, 2009)
Inflation:	2.75% per year
Total payroll growth:	2.75% per year
Salary Increases:	4% to 7.5%
Retirement age:	50% probability of retirement upon first eligibility for unreduced retirement. Thereafter, the probability of retirement is 20% for each year until age 75, and increases to 100% at age 75.
Mortality:	RP-2000 healthy mortality table (males +3, females +2). Mortality for disabled lives is the RP 2000 disability mortality (males +6, females +4). Both tables are projected generationally from 2016 using 30% of Scale BB.

(8) Pensions, Continued

B. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions, Continued:

The actuarial assumptions used in the September 30, 2017 valuations were based on the results of an actuarial experience study for the period October 1, 2011 to September 30, 2015.

The investment rate assumption as of September 30, 2017 was 7%. The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and the assumed rate of inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of the expected nominal return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Nominal Return
U.S. Equities (large cap)	29.0%	7.47%
U.S. Equities (small cap)	7.0%	8.73%
Non-U.S. Equities	16.5%	9.27%
Non-U.S. Equities (emerging markets)	2.0%	11.09%
U.S. Fixed Income (aggregate)	21.5%	4.67%
Risk parity	8.0%	6.50%
High yield bonds	8.0%	6.59%
Global Real Estate (REITs)	5.0%	8.60%
Master Limited Partnerships	3.0%	6.56%

Changes in Actuarial Assumptions: The following changes in actuarial assumptions occurred from the September 30, 2016 valuation to the September 30, 2017 valuation:

Remaining Amortization Period: The unfunded liability was being amortized over a closed period ending on May 1, 2031. This was extended by 2 years to May 1, 2033 by Public Law 33-186.

Discount Rate: The discount rate used to measure the total pension liability for the DB Plan as of September 30, 2018 and 2017 was 7.0%, which is equal to the expected investment rate of return. The expected investment rate of return applies to benefit payments that are funded by plan assets (including future contributions), which includes all plan benefits except supplemental annuity payments to DB retirees and ad hoc COLA to both DB and DCRS retirees. The discount rate used to measure the total pension liability for the supplemental annuity and ad hoc COLA payments as of September 30, 2018 was 4.18% (3.64% as of September 30, 2017), which is equal to the rate of return of a high quality bond index.

Discount Rate Sensitivity Analysis: The following presents the sensitivity of the net pension liability to changes in the discount rate. The sensitivity analysis shows the impact to GWA's proportionate share of the net pension liability if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount rate:

(8) Pensions, Continued

B. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions, Continued:

Defined Benefit Plan:

	1% Decrease in Discount Rate 6.0%	Current Discount Rate 7.0%	1% Increase in Discount Rate 8.0%
Net Pension Liability	$ 47,551,409	$ 37,292,034	$ 28,485,544

Ad Hoc COLA/Supplemental Annuity Plan for DB Retirees:

	1% Decrease in Discount Rate 3.18%	Current Discount Rate 4.18%	1% Increase in Discount Rate 5.18%
Net Pension Liability	$ 12,247,240	$ 11,195,277	$ 10,286,081

Ad Hoc COLA Plan for DCRS Retirees:

	1% Decrease in Discount Rate 3.18%	Current Discount Rate 4.18%	1% Increase in Discount Rate 5.18%
Net Pension Liability	$ 1,244,066	$ 1,105,860	$ 987,816

C. Payables to the Pension Plans:

As of September 30, 2019 and 2018, GWA recorded payables to GGRF of $307,599 and $289,747, respectively, representing statutorily required contributions unremitted as of the respective year-ends.

(9) Other Post Employment Benefits (OPEB)

GWA participates in the retiree health care benefits program. GovGuam's Department of Administration is responsible for administering the GovGuam Group Health Insurance Program, which provides medical, dental, and life insurance benefits to retirees, spouses, children and survivors. Active employees and retirees who waive medical and dental coverage are considered eligible for the life insurance benefit only. The program covers retirees and is considered an other post employment benefits plan.

A. General Information About the OPEB Plan:

Plan Description: The other post employment benefits plan is a single-employer defined benefit plan that provides healthcare benefits to eligible employees and retirees who are members of the GovGuam Retirement Fund. No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75. The Governor's recommended budget and the annual General Appropriations Act enacted by the Guam Legislature provide for a premium level necessary for funding the program each year on a "pay-as-you-go" basis. Because the OPEB Plan consists solely of GovGuam's firm commitment to provide OPEB through the payment of premiums to insurance companies on behalf of its eligible retirees, no stand-alone financial report is either available or generated.

(9) Other Post Employment Benefits (OPEB), Continued

A. General Information About the OPEB Plan, Continued:

Plan Membership: As of September 30, 2018 and 2017 (the respective measurement periods), the date of the most recent valuation (the actuarial valuation date), plan membership consisted of the following:

	2018	2017
Inactive plan members or beneficiaries currently receiving benefits	7,930	7,342
Active plan members	10,136	10,282
Total plan members	18,066	17,624

Benefits Provided: The OPEB Plan provides post employment medical, dental and life insurance benefits to GWA retirees, spouses, children and survivors, which are the same benefits as provided to active employees. Active employees and retirees who waive medical and dental coverage are considered eligible for the life insurance benefit only. GWA contributes a portion of the medical and dental premiums, based on a schedule of semi-monthly rates, and reimburses certain Medicare premiums to eligible retirees. Retirees are also required to pay a portion of the medical and dental insurance premiums. Three types of health plans are offered to eligible participants:

- Standard islandwide Preferred Provider Organization (PPO) Plan
- High Deductible (Health Savings Account - HSA) PPO Plan
- Retiree Supplement Plan (RSP)

The PPO and HSA Plans apply to both active employees and retirees and work with set deductible amounts whereas the RSP Plan is an added option for retirees only.

Contributions: No employer contributions are assumed to be made since an OPEB trust has not been established. Instead, the OPEB Plan is financed on a substantially "pay-as-you-go" basis whereby contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

B. Total OPEB Liability:

As of September 30, 2019 and 2018, GWA reported a total OPEB liability of $62,656,405 and $88,950,661, respectively, for its proportionate share of the GovGuam total OPEB liability measured as of September 30, 2018 and 2017. The following presents GWA's proportion change in proportion since the prior measurement date:

Proportion at prior measurement date, September 30, 2017	3.66%
Proportion at measurement date, September 30, 2018	3.34%
Decrease in proportion	(0.32)%

(9) Other Post Employment Benefits (OPEB), Continued

A. Total OPEB Liability, Continued:

The total OPEB liability for the OPEB Plan was determined by an actuarial valuation as of September 30, 2018 (the measurement date) using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation:	2.75%.
Amortization method:	Level dollar amount over 30 years on an open amortization period for pay-as-you-go funding.
Salary increases:	7.5% per year for the first 5 years of service, 6% for 5-10 years, 5% for 11-15 years and 4% for service over 15 years. Previously, 7.5% per year for the first 5 years of service, 6% for 5-10 years, 5% for 11-15 years and 4.5% for service over 15 years.
Healthcare cost trend rates:	For 2018, Non-Medicare 13.5%; Medicare -25%; and Part B 5.33%. For the second year, 6.75% then reducing 0.25% annually to an ultimate rate of 4.25% for 2029 and later years. Previously, 8% for 2016, decreasing 0.25% per year to an ultimate rate of 4.5% for 2030 and later years. Health care trend assumptions begin at current levels and grade down over a period of years to a lower level equal to some real rate plus inflation. The principal components of health trend are medical inflation, deductible erosion, cost shifting, utilization, technology and catastrophic claims. The overall effect of these components are expected to decline year by year.
Dental trend rates:	3.8% in year one, 3.75% per year thereafter, based on a blend of historical retiree premium rate increases as well as observed U.S. national trends. Previously, 4% per year.
Participation rates:	Medical - 100% of eligible retired employees will elect to participate. Dental - 100% of eligible retires will elect to participate. Life - 100% of eligible retirees will elect to participate. Current retirees will continue in the GovGuam plan as provided in the data, and upon attainment of age 65, will remain in that plan or enroll in a Retiree Supplemental Plan per Medicare Enrollment assumption below.
Medicare enrollment:	15% of current and future retirees are assumed to enroll in Medicare and will enroll in a Retiree Supplemental Plan upon attainment of age 65. All employees retired prior to September 30, 2008 are assumed ineligible for Medicare upon attainment of age 65 and therefore will not enroll in a Medicare Supplemental Plan.

(9) Other Post Employment Benefits (OPEB), Continued

A. Total OPEB Liability, Continued:

Dependent status:	Male spouses are assumed to be three years older and female spouses are assumed to be three years younger than the retired employee. Medical - 100% of spouses of active employees covered under a GovGuam medical plan will elect to participate at the active employee's retirement. Dental - 100% of spouses of active employees covered under a GovGuam dental plan will elect to participate at the active employee's retirement. Life - 100% of spouses of active employees will elect to participate at the active employee's retirement. For current retired employees, the actual census information is used. Previously, 60% of employees are assumed to retire with a covered spouse.
Actuarial cost method:	Entry Age Normal. The costs of each employee's post-employment benefits are allocated as a level basis over the earnings of the employee between the employee's date of hire and the assumed exit ages.
Healthy Retiree mortality rates:	RP-2000 Combined Healthy Mortality Table, set forward 3 years and 2 years for males and females, respectively, projected generationally using 30% of Scale BB. Previously, set forward 4 years and 1 year for males and females, respectively.
Disabled Retiree mortality rates:	RP-2000 Disabled Mortality Table, set forward 6 years and 4 years for males and females, respectively, projected generationally using 30% of Scale BB.
Withdrawal rates:	15% for less than 1 year of service, decreasing 1% for each additional year of service up to 10 years, further decreasing 0.5% for each additional year of service up to 15 years, and 2% for service over 15 years.
Disability rates:	1974-78 SOA LTD Non-Jumbo, with rates reduced by 50% for males and 75% for females as follows: 0.05% for males aged 20-39 years (0.03% for females); 0.10% - 0.18% for males aged 40-49 years (0.05% - 0.09% for females); 0.32% - 0.53% for males aged 50-59 years (0.16% - 0.27% for females); and 0.76% for males aged 60-64 years (0.38% for females). Previously, 1974-78 SOA LTD Non-Jumbo, with rates reduced by 50% for males and females.
Retirement rates:	50% of employees are assumed to retire at first eligibility for unreduced benefits under the GovGuam Retirement Fund, 20% per year thereafter until age 75, and 100% at age 75. Previously, 40% of employees are assumed to retire at earliest eligibility for unreduced benefits under the GovGuam Retirement Fund, 15% per year thereafter until age 65, 20% per year thereafter until age 70 and 100% at age 70.

(9) Other Post Employment Benefits (OPEB), Continued

A. Total OPEB Liability, Continued:

Discount rate: The discount rate used to measure the total OPEB liability was 4.18% as of September 30, 2018 (3.63% as of September 30, 2017). The projection of cash flows used to determine the discount rate assumed that contributions from GovGuam will be made in accordance with the plan's funding policy. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be insufficient to make all projected benefit payments of current plan members. Therefore, the 4.18% municipal bond rate as of September 30, 2018 (3.63% as of September 30, 2017) was applied to all periods to determine the total OPEB liability.

OPEB plan fiduciary net position: As of September 30, 2019 and 2018, an OPEB trust has not been established thus the OPEB Plan does not presently report OPEB plan fiduciary net position.

C. Changes in the Total OPEB Liability:

Changes in GWA's proportionate share of the total OPEB liability for the years ended September 30, 2019 and 2018 are as follows:

	2019	2018
Balance at beginning of the year	$ 88,950,661	$ 93,748,336
Changes for the year:		
Service cost	2,759,685	3,131,482
Interest	3,296,491	2,937,853
Change in proportionate share	(7,864,286)	(108,281)
Differences between expected and actual experience	(17,455,779)	-
Change of assumptions	(5,234,517)	(9,141,214)
Benefit payments	(1,795,850)	(1,617,515)
Net change	(26,294,256)	(4,797,675)
Balance at end of the year	$ 62,656,405	$ 88,950,661

Sensitivity of the total OPEB liability to changes in the discount rate: The following presents the sensitivity of the total OPEB liability to changes in the discount rate. The sensitivity analysis shows the impact to GWA's proportionate share of the total OPEB liability if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount rate:

	1% Decrease in Discount Rate 3.18%	Current Discount Rate 4.18%	1% Increase in Discount Rate 5.18%
Total OPEB Liability	$ 73,891,990	$ 62,656,405	$ 53,631,050

(9) Other Post Employment Benefits (OPEB), Continued

C. Changes in the Total OPEB Liability, Continued:

Sensitivity of the total OPEB liability to changes in the healthcare cost trend rates: The following presents the sensitivity of the total OPEB liability to changes in the healthcare cost trend rate. The sensitivity analysis shows the impact to GWA's proportionate share of the total OPEB liability if it were calculated using a healthcare cost trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rate:

	1% Decrease	Healthcare Cost Trend Rates	1% Increase
Total OPEB Liability	$ 52,248,961	$ 62,656,405	$ 76,128,340

D. OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB:

For the years ended September 30, 2019 and 2018, GWA reported total OPEB expense of $593,794 and $6,791,135, respectively, for its proportionate share of the GovGuam total OPEB expense measured for the years ended September 30, 2018 and 2017. At September 30, 2019 and 2018, GWA reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	2019		2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Changes of assumptions	$ 4,537,956	$ 10,398,720	$ 6,613,994	$ 7,622,374
Difference between expected and actual experience	-	14,321,887	-	-
Contributions subsequent to the measurement date	2,444,240	-	2,456,820	-
Changes in proportion and difference between employer contributions and proportionate share of contributions	-	7,037,455	-	1,119,526
	$ 6,982,196	$ 31,758,062	$ 9,070,814	$ 8,741,900

Deferred outflows resulting from contributions subsequent to measurement date will be recognized as reduction of the total OPEB liability in the following year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at September 30, 2019 will be recognized in OPEB expense as follows:

Year Ending September 30	
2020	$ (5,665,104)
2021	(5,665,104)
2022	(5,665,104)
2023	(7,037,765)
2024	(3,187,029)
	$ (27,220,106)

(10) Real Estate Property Transferred by Government of Guam

The Government of Guam, pursuant to Public Law 23-119, assigned to GWA various real estate property under GWA's administration. As of September 30, 2019 and 2018, the property has not been recognized in the financial statements pending completion of formal transfer proceedings.

(11) Agreements with the United States Navy

Pursuant to a Memorandum of Agreement, the U.S. Navy supplies water through its water system to GWA for distribution and resale to non-military customers. Total purchases from the U.S. Navy for the years ended September 30, 2019 and 2018 are $6,277,864 and $8,684,974, respectively.

(12) Commitments and Contingencies

Merit System

Public Law 21-59, enacted the Uniform Position Classification and Salary Administration Act of 1991 for employees of GovGuam, autonomous and semi-autonomous agencies, public corporations and other public instrumentalities of GovGuam. The Act included a merit bonus, calculated at 3.5% of the employee's base salary, for employees who earn a superior performance grade. On September 17, 2013, the CCU, in GWA Resolution 42-FY2013, authorized the payment of merit bonuses in the years succeeding the CCU's approval to all eligible classified employees in accordance with the laws of Guam.

On October 20, 2017, CCU Resolution 01-FY2018 approved the creation and addition of GWA Certified, Technical and Professional (CTP) positions and the implementation of a Strategic Pay Scale for such positions as authorized by Public Law 28-159. The conversion to the CTP positions and pay scale from the unified system of position classification and compensation eliminated merit bonuses. GWA believes that no liability may ultimately arise from this matter and therefore no liability has been recognized in the accompanying statements.

Claims

Due to the nature of its operations, GWA is subject to various claims by private and governmental customers and vendors for various alleged losses. Because an estimate of the amount or range of potential loss cannot be determined at this time, no provision for any liability that may result from such claims has been made in the accompanying financial statements.

Contract Commitments

Contract commitments in connection with projects currently in construction approximate $233,692,718 at September 30, 2019, of which $170,103,256 will be funded by federal contracts from the U.S. Government.

Program Management Office Services

On February 6, 2012, GWA entered into a contract for Program Management Office (PMO) services to provide a wide variety of as needed program management services and general staff assistance for the development of required utility infrastructure improvements. The PMO provides GWA with additional resources to address the deadlines defined in the November 10, 2011 court order and supports GWA staff in executing bond funded projects, military buildup and other related project tasks. The PMO contract is scheduled to end on December 31, 2019. On January 31, 2017, GWA entered into a separate contract for Program Management/Construction Management (PM/CM) to manage the implementation and execution of projects related to the military buildup, financed primarily by the Office of Economic Adjustment, and to provide support services related to project management, design, construction and operational needs as part of the execution of these projects. Contract commitments for the PMO services and PM/CM services approximate $10,723,007 as of September 30, 2019.

(12) Commitments and Contingencies, Continued

Operating Lease

In February 2015, GWA moved to a building owned by Guam Power Authority (GPA). GWA does not currently have a signed lease agreement with GPA but pays for its share of building maintenance costs.

On October 27, 2016, CCU, GWA, and GPA agreed that GWA's cost share for the building is $269,170 annually.

Medicare

The Government of Guam and its component units, including GWA, began withholding and remitting funds to the U.S. Social Security System for the health insurance component of its salaries and wages effective October 1998. Prior to that date, the Government of Guam did not withhold or remit Medicare payments to the U.S. Social Security System. If the Government is found to be liable for Medicare payments on salaries and wages prior to October 1998, an indeterminate liability could result. It has been the practice of GWA and all other component units of the Government of Guam that payment of this health insurance component is optional prior to October 1998. Therefore, no liability for any amount which may ultimately arise from this matter has been recorded in the accompanying financial statements.

Court Order

In 2002, the U.S. Government filed a complaint against GWA and the Government of Guam for alleged violations under the Federal Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA). Because of GWA's non-compliance with the National Primary Drinking Water Regulations, the U.S. Government is seeking both civil penalties and injunctive relief to address such non-compliance. Both GWA and the U.S. Department of Justice, Environmental and Natural Resources Division, mutually agreed in the form of a Court Order to resolve the violation issues.

In 2003, a Court Order for Preliminary Relief was filed before the District Court of Guam. The Stipulation requires implementation of short-term projects and initial planning measures by GWA. GWA is required to submit a final financial plan in the Master Plan that generates sufficient revenue to cover the cost of all compliance activities and deliverables required by the Court Order for Preliminary Relief, as well as any other anticipated expenses, including any measures necessary to ensure compliance with the CWA and the SDWA and costs related to the infrastructure improvements identified in the Master Plan.

In 2006, the Court Order was amended which required GWA to perform approximately $220 million of capital improvement projects and perform other actions to bring GWA's system into compliance. However, GWA was unable to meet all deadlines set out in the amended Court Order. The District Court ordered the parties to stipulate as to scope of remaining projects and project completion dates; however, the parties were unable to reach an agreement on all items. As a result, on November 10, 2011, the District Court issued an order setting new deadlines for the unfinished projects and establishing new projects that were not part of the amended Court Order. As of September 30, 2019, of the 93 items required by the Court Order, 92 items are either complete or in progress (e.g., continuous reporting requirement) except for one delayed project related to the repair, rehabilitation or replacement of water reservoirs estimated to cost $42 million. This project cannot move forward until the 2020 Series Revenue Bonds have been issued and funds become available.

(12) Commitments and Contingencies, Continued

Primary Treatment Permits

In 2011, the United States Environmental Protection Agency (USEPA) informed GWA that its primary treatment permits for the Hagatna and Northern District Wastewater Treatment Plants had been denied and that GWA would be required to upgrade the plants to secondary treatment. The upgrades have been estimated to cost approximately $300 million. GWA intends to negotiate with the USEPA as to timelines for upgrading the plants, which will determine the implementation schedule for secondary treatment.

(13) Contributions Received

Contributions received by GWA during the years ended September 30, 2019 and 2018, are as follows:

	2019	2018
Grants from the U.S. Government:		
Received from the U.S. EPA - Direct	$ 5,545,598	$ 7,044,026
Received from the U.S. EPA - Non-cash	-	746,644
Received from the U.S. DOD	16,064,600	7,145,870
Passed through from the Government of Guam	191,241	272,167
	$ 21,801,439	$ 15,208,707

(14) Supplemental Annuities/COLA

As required by enabling legislation, GWA must pay to the Government of Guam Retirement Fund certain supplemental benefits for retirees. During the years ended September 30, 2019 and 2018, GWA levied a surcharge of 3.75% amounting to $3,563,032 and $3,470,508, respectively, in accordance with this legislation. The supplemental benefits are derived from an annual appropriation by the Guam Legislature and do not relate to covered Plan benefits.

(15) System Development Charge (SDC)

In 2010, PUC approved the implementation of a water and sewer SDC, which authorized GWA to charge water and wastewater SDC to applicable customers on and after March 2, 2010. SDC revenues generated and collected are to be expended for costs associated with the construction, expansion, upgrade, and repair of water and wastewater facilities for users who are for the first time connecting property into the Guam water or wastewater system or for builders if the density of the existing connection is increased. SDC revenues may also be used to pay the principal sum and interest and other finance costs on bonds, notes or other obligations issued by or on behalf of GWA to finance such capital improvements or facilities expansion or renovations. During the years ended September 30, 2019 and 2018, SDC revenues were $885,513 and $1,070,985, respectively.

(16) Related Party Transactions

GWA receives electrical and administrative services from GPA, a component unit of the Government of Guam also governed by the CCU. Electricity purchases from GPA for the years ended September 30, 2019 and 2018 were $16,150,781 and $14,686,486, respectively, and GWA was also charged $465,088 and $907,383, respectively, for administrative services provided by GPA. Outstanding payables for power purchases, administrative expenses and cost reimbursements owed by GWA to GPA were $1,577,607 and $1,353,897 as of September 30, 2019 and 2018, respectively.

(16) Related Party Transactions, Continued

For the years ended September 30, 2019 and 2018, GWA billed GPA a total of $1,323,554 and $2,437,185, respectively, for water and sewer charges on the facilities transferred by the Navy to GPA. The amount due from GPA as of September 30, 2019 and 2018 was $464,473 and $616,350, respectively, which is included in receivables in the accompanying statements of net position.

GWA receives waste disposal services from Guam Solid Waste Authority (GSWA). Waste disposal fees for the years ended September 30, 2019 and 2018 were $1,333,887 and $1,507,654, respectively. Outstanding payables for waste disposal fees owed by GWA to GSWA were $84,372 and $241,302 as of September 2019 and 2018, respectively, and were included in trade accounts payable in the accompanying statements of net position.

During the year ended September 30, 2019, GWA wrote off $358,954 of outstanding receivables from Government of Guam Department of Parks and Recreation and Department of Public Health and Social Services.

During the year ended September 30, 2018, GWA completed its land purchase transaction from Guam Ancestral Lands Commission (GALC) covering 70,000 sq. meters located in Dededo with intended use for Northern District Wastewater Treatment Plant Secondary Treatment Upgrades project. Total acquisition cost amounted to $2,510,323.

(17) Subsequent Events

Proposed Bond Issuance

On January 28, 2020, the CCU adopted and approved the issuance and sale of Series 2020 bonds in the amount of $134,000,000 to finance various capital improvement projects and to redeem a portion of the outstanding Series 2013 bonds.

Rate Increase

On February 27, 2020, the PUC approved a base rate increase of 5%, effective upon the issuance of the PUC's resolution, and a further 5% base rate increase, effective October 1, 2020.

COVID-19

On March 11, 2020, the World Health Organization declared the novel strain of coronavirus (COVID-19) a global pandemic and recommended containment and mitigation measures worldwide. On March 13, 2020, President Donald J. Trump declared a national emergency within the United States. In response to the national emergency declared by the U.S. President, on March 14, 2020, Governor Lourdes A. Leon Guerrero issued Executive Order 2020-03 declaring a state of emergency in response to COVID-19. Further, Executive Order 2020-04 ordered the closure of all non-essential Government of Guam offices, prohibited large gatherings, and restricted entry into Guam from countries with confirmed COVID-19 cases. As a result, schools and non-essential government agencies and businesses have closed. GWA has closed its offices to the public and has required all non-essential employees to work from home. While the disruption is currently expected to be temporary, there is uncertainty around the duration. Therefore, while we expect this matter to negatively impact our business, results of operations, and financial position, the related financial impact cannot be reasonably estimated at this time.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedules of Required Supplemental Information (Unaudited)
Schedule of Proportionate Share of the Net Pension Liability
Last 10 Fiscal Years*

Defined Benefit Plan

	2019	2018	2017	2016	2015
Total net pension liability	$ 1,179,192,550	$ 1,142,249,393	$ 1,368,645,126	$ 1,436,814,230	$ 1,246,306,754
GWA's proportionate share of the net pension liability	$ 37,292,034	$ 33,100,479	$ 38,799,923	$ 40,053,650	$ 34,047,740
GWA's proportion of the net pension liability	3.16%	2.90%	2.83%	2.79%	2.73%
GWA's covered-employee payroll**	$ 16,251,058	$ 14,729,699	$ 14,353,805	$ 14,388,631	$ 13,930,486
GWA's proportionate share of the net pension liability as percentage of its covered-employee payroll	229.47%	224.72%	270.31%	278.37%	244.41%
Plan fiduciary net position as a percentage of the total pension liability	63.28%	60.63%	54.62%	52.32%	56.60%

* This data is presented for those years for which information is available.
** Covered-employee payroll data from the actuarial valuation date with one-year lag.

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedules of Required Supplemental Information (Unaudited)
Schedule of Proportionate Share of the Net Pension Liability
Last 10 Fiscal Years*

Ad Hoc COLA/Supplemental Annuity Plan for DB Retirees

	2019	2018	2017
Total net pension liability	$ 289,875,668	$ 288,147,121	$ 229,486,687
GWA's proportionate share of the net pension liability	$ 11,195,277	$ 10,909,240	$ 8,881,604
GWA's proportion of the net pension liability	3.86%	3.79%	3.87%
GWA's covered-employee payroll**	$ 19,846,017	$ 19,244,239	$ 19,595,708
GWA's proportionate share of the net pension liability as percentage of its covered employee payroll	56.41%	56.69%	45.32%

* This data is presented for those years for which information is available.
** Covered-employee payroll data from the actuarial valuation date with one-year lag.
*** No assets accumulated in a trust to pay the benefits.

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedules of Required Supplemental Information (Unaudited)
Schedule of Proportionate Share of the Net Pension Liability
Last 10 Fiscal Years*

Ad Hoc COLA Plan for DCRS Retirees

	2019	2018	2017
Total net pension liability	$ 49,342,424	$ 62,445,490	$ 61,688,067
GWA's proportionate share of the net pension liability	$ 1,105,860	$ 1,441,633	$ 1,562,273
GWA's proportion of the net pension liability	2.24%	2.31%	2.53%
GWA's covered-employee payroll**	$ 5,927,414	$ 8,698,580	$ 9,245,521
GWA's proportionate share of the net pension liability as percentage of its covered employee payroll	18.66%	16.57%	16.90%

* This data is presented for those years for which information is available.
** Covered-employee payroll data from the actuarial valuation date with one-year lag.
*** No assets accumulated in a trust to pay the benefits.

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedules of Required Supplemental Information (Unaudited)
Schedule of Pension Contributions
Last 10 Fiscal Years*

	2019	2018	2017	2016	2015
Actuarially determined contribution	$ 4,029,190	$ 3,491,479	$ 3,524,561	$ 3,759,121	$ 3,684,774
Contributions in relation to the actuarially determined contribution	4,296,287	3,630,252	3,527,186	3,749,595	3,663,653
Contribution deficiency (excess)	$ (267,097)	$ (138,773)	$ (2,625)	$ 9,526	$ 21,121
GWA's covered-employee payroll **	$ 16,251,058	$ 14,729,699	$ 14,353,805	$ 14,388,631	$ 13,930,486
Contributions as a percentage of covered employee payroll	26.44%	24.65%	24.57%	26.06%	26.30%

* This data is presented for those years for which information is available.
** Covered-employee payroll data from the actuarial valuation date with one-year lag.

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedules of Required Supplemental Information

Schedule of Changes in the Proportionate Share of the Total OPEB Liability and Related Ratios
Last 10 Fiscal Years*

	2019	2018	2017
Total OPEB liability:			
Service cost	$ 2,759,685	$ 3,131,482	$ 2,493,619
Interest	3,296,491	2,937,853	3,019,815
Change in proportionate share	(7,864,286)	(108,281)	-
Differences between expected and actual experience	(17,455,779)	-	-
Changes of assumptions	(5,234,517)	(9,141,214)	10,140,650
Benefit payments	(1,795,850)	(1,617,515)	(1,617,515)
Net change in total OPEB liability	(26,294,256)	(4,797,675)	14,036,569
Total OPEB liability - beginning	88,950,661	93,748,336	79,711,767
Total OPEB liability - ending	$ 62,656,405	$ 88,950,661	$ 93,748,336
Covered-employee payroll	$ 13,011,086	$ 14,150,906	$ 14,150,906
GWA's total OPEB liability as a percentage of covered employee payroll	482%	629%	662%
Notes to schedule			
Discount rate	4.18%	3.63%	3.06%

Changes of benefit terms:
None.

Changes of assumptions:
Discount rate has changed from respective measurement dates.

* Information for 2010 - 2016 is not available
** No assets accumulated in a trust to pay the benefits.

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedules of Required Supplemental Information (Unaudited)
Schedule of Proportionate Share of the Total OPEB Liability
Last 10 Fiscal Years*

	2019	2018	2017
Total OPEB liability **	$ 1,874,970,335	$ 2,431,048,672	$ 2,532,753,040
GWA's proportionate share of the total OPEB liability	$ 62,656,405	$ 88,950,661	$ 93,748,336
GWA's proportionate of the total OPEB liability	3.34%	3.66%	3.70%
GWA's covered-employee payroll	$ 13,011,086	$ 14,150,906	$ 14,150,906
GWA's proportionate share of the total OPEB liability as percentage of its covered-employee payroll	481.56%	628.59%	662.49%

* This data is presented for those years for which information is available.

** No assets accumulated in a trust to pay the benefits.

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedules of Required Supplemental Information
Schedule of OPEB Contributions
Last 10 Fiscal Years*

	2019	2018	2017
Actuarially determined contribution	$ 7,776,105	$ 8,045,954	$ 7,035,490
Contributions in relation to the actuarially determined contribution	1,795,850	1,617,515	1,617,515
Contribution deficiency	$ 5,980,255	$ 6,428,439	$ 5,417,975
GWA's covered-employee payroll	$ 13,011,086	$ 14,150,906	$ 14,150,906
Contributions as a percentage of covered-employee payroll	13.80%	11.43%	11.43%

Notes to Schedule

Valuation date:

Actuarially determined contributions rates are calculated as of September 30, 2018.

Method and assumptions used to determine contributions rates:

Actuarial cost method:	Entry age normal.
Amortization method:	Level dollar amount on an open amortization period for pay-as-you-go funding.
Amortization period:	30 years
Inflation:	2.75%
Healthcare cost trend rates:	Non-Medicare 13.5%; Medicare -25%; and Part B 5.33%. For the second year, 6.75% then reducing 0.25% annually to an ultimate rate of 4.25% for 2029 and later years
Salary increase:	4.5% to 7.5%
Mortality (Healthy Retiree):	RP-2000 Combined Healthy Mortality Table, set forward 3 years and 2 years for males and females, respectively, projected generationally using 30% of Scale BB
Mortality (Disabled Retiree):	RP-2000 Disabled Mortality Table, set forward 6 years and 4 years for males and females, respectively, projected generationally using 30% of Scale BB

* Information for 2010 - 2016 is not available

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedule of Certain Operating and Maintenance Expenses
Years Ended September 30, 2019 and 2018

	2019	2018
Salaries, wages and benefits:		
Regular, differential and hazardous pay	$ 15,130,677	$ 13,008,745
Pension costs and other benefits	4,264,322	3,695,093
Overtime pay	1,635,364	1,830,670
Total salaries, wages and benefits	$ 21,030,363	$ 18,534,508
Administrative and general:		
Chemicals	$ 2,451,801	$ 2,191,505
Materials and supplies	2,246,462	2,171,938
Miscellaneous	1,035,408	1,014,770
Insurance	916,471	912,061
Transportation	778,349	768,010
Training	331,577	271,825
Public Utility Commission	268,597	265,454
Liability claims	196,334	129,641
Communications	161,836	177,066
Advertising	124,027	170,709
Total administrative and general	$ 8,510,862	$ 8,072,979
Contractual:		
Labor, materials and others	$ 2,985,591	$ 2,406,807
Equipment rental	1,412,592	1,070,482
Accounting	941,820	706,830
Property rental	423,622	439,236
Testing	169,899	413,296
Legal	11,954	-
Total contractual	$ 5,945,478	$ 5,036,651
Other expense:		
Interest expense	$ 25,795,133	$ 26,498,040
Retiree healthcare costs and other benefits	2,267,681	8,548,967
	$ 28,062,814	$ 35,047,007

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedule of Construction Work in Progress
Year Ended September 30, 2019

Project Title	Type	Beginning Balance FY2018	Additions and Transfers	Closed out during FY2019	Ending Balance FY2019
Agat-Santa Rita Wastewater Treatment Plant Replacement	Wastewater	$ 57,019,275	$ 15,076,722	$ (72,095,997)	$ -
Asan Springs Rehabilitation	Water	608,013	82,173	-	690,186
Backflow Prevention and Cross-Connection Control Program	Wastewater	131,743	-	-	131,743
Baza Garden WW Cross Island Pumping and Conveyance	Wastewater	35,521,733	13,283,442	(48,805,175)	-
Centrifuge Emergency Repair	Wastewater	-	73,105	(73,105)	-
Deepwell New Wells Site Development and Rehabilitation	Water	3,422,162	174,616	(2,063,701)	1,533,077
Equipment Purchases	Water/Wastewater	-	902,682	(461,703)	440,979
Facilities Improvement	Water/Wastewater	72,209	278,151	(323,375)	26,985
Facility Plans for Hagatna and Northern District WWTP	Wastewater	1,232,252	8,320	-	1,240,572
GWA Interceptor Sewer Refurbishment Project Northern District	Wastewater	1,074,609	9,925,391	(8,384,676)	2,615,324
Hydraulic Model for Sewer	Wastewater	21,683	219,442	-	241,125
I&I SSES for Central/Northern/Southern Sewer Systems	Wastewater	3,258,170	-	-	3,258,170
Information Technology	Water/Wastewater	803,001	609,434	-	1,412,435
Island Wide Real Property Survey & Mapping	Water/Wastewater	1,705,879	85,817	-	1,791,696
Island Wide Water Reservoirs	Water	27,713,644	15,621,836	(19,264,737)	24,070,743
Land Acquisitions	Water/Wastewater	-	233,695	(233,695)	-
Line Replacement - Phase IV	Water	6,984,989	2,060,863	(8,938,622)	107,230
Meters and Related	Water	481,392	(33,989)	-	447,403
Ordot-Chalan Pago Sewer	Wastewater	637,118	-	-	637,118
Pigua Generator Building	Water	62,664	-	-	62,664
Program Management Office	Water/Wastewater	4,740,928	782,947	(3,388)	5,520,487
Route 1 Sanitary Sewer Rehabilitation and Replacement (Asan-Adelup-Hagatna)	Wastewater	1,731,514	1,145,816	(195,815)	2,681,515
Route 2 Agat War in the Pacific National Park Sewerline Rehab & Replacement	Wastewater	2,369,714	1,867,786	-	4,237,500
Route 3 16" Pressure Regulating Valve and Isolation Valves	Water	141,082	81,077	-	222,159
Route 4 Relief Sewer Line Rehabilitation Replacement	Wastewater	612,791	838,643	-	1,451,434
Satellite Based Leak Detection Services	Water	-	222,985	(222,985)	-
SCADA System for Water and Wastewater	Water/Wastewater	2,874,290	1,377,193	(55,685)	4,195,798
Sewer Pump Station Improvements	Wastewater	584,529	932,133	-	1,516,662
System Wide District Meters	Water	273,359	(273,359)	-	-
Tamuning Hot Spots Sewer Line Rehabilitation and Replacement	Wastewater	552,349	-	-	552,349
Tiyan Water Audit	Water	48,058	-	(48,058)	-
Tumon Hot Spots Sewer Line Rehabilitation	Wastewater	432,507	-	-	432,507
Ugum WTP Improvements	Water	477,120	-	(477,120)	-
Umatac-Merizo Wastewater Systems	Wastewater	10,817,162	13,224,217	(15,262)	24,026,117
Upgrade to Secondary Treatment at NDWWTP	Wastewater	3,707,296	4,607,699	-	8,314,995
Water and Wastewater Infrastructure Improvements	Water/Wastewater	3,226,287	3,320,930	-	6,547,217
Water BPS Improvements	Water	253,875	111,417	-	365,292
Water Chlorination System	Water	-	19,957	(19,957)	-
Water Distribution Systems	Water	744,388	274,938	(258,150)	761,176
Water Hydraulic Modeling Data Collection	Water	560,254	76,555	(150,778)	486,031
Water Resources Master Plan	Water	2,636,713	58,128	(2,694,841)	-
Water System Hydraulic	Water	682,805	-	(682,805)	-
Wet Barrel Fire Hydrants Replacement Project	Water	226,369	45,401	(127,953)	143,817
		$ 178,443,926	$ 87,316,163	$ (165,597,583)	$ 100,162,506

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

System Development Charge Fund
Schedules of Net Position, Revenue, Expenses and Changes in Net Position
September 30, 2019 and 2018

ASSETS

	2019	2018
Current assets:		
Restricted cash	$ 9,274,365	$ 10,184,847
Receivables	166,911	163,319
Due from GWA	168,182	1,114,769
	$ 9,609,458	$ 11,462,935

LIABILITIES AND NET POSITION

Net position:		
Restricted	$ 9,609,458	$ 11,462,935
	$ 9,609,458	$ 11,462,935

REVENUES, EXPENSES AND CHANGES IN NET POSITION

Revenues:		
System development charge	$ 885,512	$ 1,070,985
Other revenues	179,291	317,740
	1,064,803	1,388,725
Expenses:		
Transfer out	2,918,280	-
Change in net position	(1,853,477)	1,388,725
Net position at beginning of year	11,462,935	10,074,210
Net position at end of year	$ 9,609,458	$ 11,462,935

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedule of Operating Revenues
Years Ended September 30, 2019 and 2018

	2019	2018
Water	$ 67,982,730	$ 66,375,564
Wastewater	39,646,646	38,301,405
Surcharges:		
Legislative	3,563,032	3,470,508
System development charge	885,513	1,070,985
Other	679,465	519,529
Bad debts expense	(2,217,121)	(2,162,950)
Total operating revenues	$ 110,540,265	$ 107,575,041

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A Component Unit of the Government of Guam)

Schedule of Employee and Other Data
Years Ended September 30, 2019 and 2018

2019

Department	Full-Time Employees	Personnel Services	Contractual Services	Materials and Supplies	Total
Administration	58	$ 3,718,799	$ 1,660,655	$ 202,939	$ 5,582,393
Accounting	26	2,102,917	539,392	21,600	2,663,909
Engineering	31	1,025,220	5,106	12,195	1,042,521
Collection and Distribution	70	4,048,486	1,312,918	892,290	6,253,694
Utility Services	68	2,958,937	18,935	56,882	3,034,754
Production and Treatment	124	7,176,004	2,408,472	1,060,556	10,645,032
Total	377	$ 21,030,363	$ 5,945,478	$ 2,246,462	$ 29,222,303

2018

Department	Full-Time Employees	Personnel Services	Contractual Services	Materials and Supplies	Total
Administration	56	$ 3,072,848	$ 1,497,992	$ 122,906	$ 4,693,746
Accounting	28	1,851,209	655,085	39,399	2,545,693
Engineering	31	868,686	1,102	15,912	885,700
Collection and Distribution	70	3,810,314	879,954	818,938	5,509,206
Utility Services	72	2,473,922	1,844	57,243	2,533,009
Production and Treatment	111	6,457,529	2,000,674	1,117,540	9,575,743
Total	368	$ 18,534,508	$ 5,036,651	$ 2,171,938	$ 25,743,097

See Accompanying Independent Auditors' Report.

GUAM WATERWORKS AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

INDEPENDENT AUDITORS' REPORTS ON INTERNAL CONTROL AND ON COMPLIANCE

YEAR ENDED SEPTEMBER 30, 2019

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

Commissioners
Consolidated Commission on Utilities:

We have audited, in accordance with the 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, the financial statements of Guam Waterworks Authority (GWA), a component unit of the Government of Guam, which comprise the statement of net position as of September 30, 2019, and the related statements of revenues, expenses and changes in net position, and of cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated May 14, 2020.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered GWA'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 GWA's internal control. Accordingly, we do not express an opinion on the effectiveness of GWA's internal control.

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

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. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

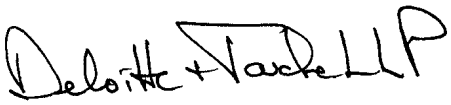
Compliance and Other Matters

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

Deloitte.

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



May 14, 2020

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INDEPENDENT AUDITORS' REPORT ON COMPLIANCE FOR THE SOLE MAJOR FEDERAL PROGRAM; REPORT ON INTERNAL CONTROL OVER COMPLIANCE; AND REPORT ON SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS REQUIRED BY THE UNIFORM GUIDANCE

Commissioners
Consolidated Commission on Utilities:

Report on Compliance for the Sole Major Federal Program

We have audited Guam Waterworks Authority's (GWA's) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on GWA's sole major federal program for the year ended September 30, 2019. GWA's sole major federal program is identified in the summary of auditors' results section of the accompanying Schedule of Findings and Questioned Costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for GWA's sole major federal program based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about GWA's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for the sole major federal program. However, our audit does not provide a legal determination of GWA's compliance.

Opinion on the Sole Major Federal Program

In our opinion, GWA complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on its sole major federal program for the year ended September 30, 2019.

Deloitte.

Report on Internal Control Over Compliance

Management of GWA is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered GWA's internal control over compliance with the types of requirements that could have a direct and material effect on the sole major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for the sole major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of GWA's internal control over compliance.

A *deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis.

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

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the financial statements of Guam Waterworks Authority as of and for the year ended September 30, 2019, and have issued our report thereon dated May 14, 2020, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying Schedule of Expenditures of Federal Awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedule of Expenditures of Federal Awards is fairly stated in all material respects in relation to the financial statements as a whole.

Deloitte & Touche LLP

May 14, 2020

GUAM WATERWORKS AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Schedule of Expenditures of Federal Awards
Year Ended September 30, 2019

CFDA #	Pass-Through Entity Identifying Number	Grantor/Program Title	Pass through to Sub-Recipient	Expenditures
U.S. Department of the Interior				
Pass-Through Government of Guam Bureau of Budget Management and Research:				
15.875	5101J129978IB111	Economic, Social and Political Development of the Territories	$ -	$ 51,879
Direct Program:				
15.875	Not applicable	Economic, Social and Political Development of the Territories		129,930
		Total U.S. Department of the Interior	$ -	$ 181,809
U.S. Environmental Protection Agency				
Direct Programs:				
66.600	Not applicable	Environmental Protection Consolidated Grants for the Insular Areas - Program Support	$ -	$ 5,545,598
		Total U.S. Environmental Protection Agency	$ -	$ 5,545,598
U.S. Department of Defense				
Direct Programs:				
12.600	Not applicable	Community Investment	$ 74,895	$ 16,064,600
		Total U.S. Department of Defense	$ 74,895	$ 16,064,600
U.S. Department of Homeland Security				
Pass-Through Guam Homeland Security - Office of Civil Defense				
97.036	5101H169978TD001290	Disaster Grants - Public Assistance (Presidentially Declared Disasters)	$ -	$ 9,432
		Total U.S. Department of Homeland Security	$ -	$ 9,432
		Grand Total	$ 74,895	$ 21,801,439
		Reconciliation to the basic financial statements: Capitalized as construction work in progress (included within the total of $100,162,506)	$ 74,895	$ 21,801,439

See Accompanying notes to Schedule of Expenditures of Federal Awards.

GUAM WATERWORKS AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Notes to Schedule of Expenditures of Federal Awards
Year Ended September 30, 2019

(1) Scope of Audit

Guam Waterworks Authority (GWA) is a component unit of the Government of Guam (GovGuam). GWA is subject to the regulations of the Public Utilities Commission of Guam (PUC). GWA became an autonomous agency in 1996 under Public Law 23-119. Only the transactions of GWA are included within the scope of the Single Audit.

Programs Subject to Single Audit

The Schedule of Expenditures of Federal Awards (the Schedule) presents each Federal program related to the U.S. Department of the Interior, the U.S. Environmental Protection Agency, the U.S. Department of Defense and the U.S. Department of Homeland Security.

(2) Basis of Presentation

The accompanying Schedule includes the federal award activity of GWA for the year ended September 30, 2019. The information in this Schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). As the Schedule presents only a selected portion of the operations of GWA, it is not intended to and does not present the financial position, changes in net position, or cash flows of GWA.

(3) Summary of Significant Accounting Policies

Basis of Accounting

Expenditures reported on the Schedule are presented on the accrual basis of accounting, consistent with the manner in which GWA maintains its accounting records. Such expenditures are recognized following the cost principles contained in the Uniform Guidance. Therefore, some amounts presented in this schedule may differ from amounts presented in, or used in the preparation of, the financial statements. All expenses and capital outlays are reported as expenditures. GWA has not elected to use the 10-percent de minimis indirect cost rate allowed under the Uniform Guidance.

GUAM WATERWORKS AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)

Schedule of Findings and Questioned Costs
Year Ended September 30, 2019

Section I - Summary of Auditors' Results

Financial Statements

1.	Type of report the auditor issued on whether the financial statements audited were prepared in accordance with GAAP:	Unmodified
	Internal control over financial reporting:	
2.	Material weakness(es) identified?	No
3.	Significant deficiency(ies) identified?	None reported
4.	Noncompliance material to financial statements noted?	No
	Federal Awards	
	Internal control over major federal programs:	
5.	Material weakness(es) identified?	No
6.	Significant deficiency(ies) identified?	None reported
7.	Type of auditors' report issued on compliance for all major federal programs:	Unmodified
8.	Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)?	No
9.	Identification of major federal programs:	

CFDA Number	Name of Federal Program or Cluster
66.600	Consolidated Environmental Program

10.	Dollar threshold used to distinguish between Type A and Type B Programs:	$ 750,000
11.	Auditee qualified as low-risk auditee?	Yes

Section II – Financial Statement Findings

No matters were reported.

Section III - Federal Award Findings and Questioned Costs

No matters were reported.

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May 14, 2020

Commissioners
Consolidated Commission on Utilities

Dear Commissioners:

We have performed an audit of the financial statements of Guam Waterworks Authority (GWA) as of and for the year ended September 30, 2019, in accordance with auditing standards generally accepted in the United States of America ("generally accepted auditing standards") and have issued our report thereon dated May 14, 2020.

We have prepared the following comments to assist you in fulfilling your obligation to oversee the financial reporting and disclosure process for which management of GWA is responsible.

This report is intended solely for the information and use of the Consolidated Commission on Utilities, the management of Guam Waterworks Authority and the Office of Public Accountability - Guam and is not intended to be and should not be used by anyone other than these specified parties. However, this report is also a matter of public record.

Very truly yours,

Deloitte & Touche LLP

cc: To Management of Guam Waterworks Authority

OUR RESPONSIBILITY UNDER GENERALLY ACCEPTED AUDITING STANDARDS AND GENERALLY ACCEPTED GOVERNMENT AUDITING STANDARDS

Our responsibility under auditing standards generally accepted in the United States of America and standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, have been described in our engagement letter dated September 5, 2019. As described in that letter, the objective of a financial statement audit conducted in accordance with the aforementioned standards is:

- To express an opinion on the fairness of GWA's financial statements and the accompanying supplementary information, in relation to the financial statements as a whole, for the year ended September 30, 2019 (the "financial statements"), in accordance with accounting principles generally accepted in the United States of America ("generally accepted accounting principles") in all material respects, and to perform specified procedures on the required supplementary information for the year ended September 30, 2019;

- To express an opinion on whether the supplementary information that accompanies the financial statements, including the schedule of expenditures of federal awards, is fairly stated, in all material respects, in relation to the financial statements taken as a whole;

- To report on GWA's internal control over financial reporting and on its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters for the year ended September 30, 2019, based on an audit of financial statements performed in accordance with standards applicable to financial audits contained in generally accepted government auditing standards; and

- To report on GWA's compliance with requirements applicable to each major program and on internal control over compliance in accordance with the *U.S. Office of Management and Budget (OMB) Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("OMB Uniform Guidance").

Our responsibilities under generally accepted auditing standards include forming and expressing an opinion about whether the financial statements that have been prepared with the oversight of management and the Consolidated Commission on Utilities (CCU) are presented fairly, in all material respects, in conformity with generally accepted accounting principles. The audit of the financial statements does not relieve management or the CCU of their responsibilities.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether caused by fraud or error. In making those risk assessments, we considered internal control over financial reporting relevant to GWA's preparation and fair presentation of the financial statements in order to design audit procedures that were appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of GWA's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of GWA's internal control over financial reporting. Our consideration of internal control over financial reporting was not designed to identify all deficiencies in internal control over financial reporting that might be significant deficiencies or material weaknesses

We also considered GWA's internal control over compliance with requirements that could have a direct and material effect on a major federal program in order to determine our auditing procedures for the purpose of expressing our opinion on compliance and to test and report on internal control over compliance in accordance with OMB Uniform Guidance. Our audit does not, however, provide a legal determination of GWA's compliance with those requirements.

ACCOUNTING ESTIMATES

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's current judgments. Those judgments are normally based on knowledge and experience about past and current events and on assumptions about future events. Significant accounting estimates reflected in GWA's 2019 financial statements include management's estimate of the allowance for doubtful accounts, which is determined based upon past collection experience and aging of the accounts; management's estimated of accrued revenues, which is based on the most recent billing; management's estimate of inventory obsolescence, which is based on management's evaluation of the inventory's realizable value; and management's estimate of depreciation expense, which is based on estimated useful lives of the respective capital assets. During the year ended September 30, 2019, we are not aware of any significant changes in accounting estimates or in management's judgments relating to such estimates.

UNCORRECTED MISSTATEMENTS

Our audit of the financial statements was designed to obtain reasonable, rather than absolute, assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud. We have attached to this letter, as Appendix A and Appendix B to Attachment II, summaries of uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest and prior period presented and passed disclosures that we presented to management during the current audit engagement that were determined by management to be immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

CORRECTED MISSTATEMENTS

As the result of our audit work, we identified matters that resulted in audit adjustments that we believe, either individually or in the aggregate, would have a significant effect on GWA's financial reporting process. Such adjustments, listed in Attachment I, were brought to the attention of management as a result of our audit procedures and were corrected by management during the current period and are reflected in the 2019 financial statements.

SIGNIFICANT ACCOUNTING POLICIES

During the year ended September 30, 2019, GWA implemented the following pronouncements:

- GASB Statement No. 83, *Certain Asset Retirement Obligations*, which addresses accounting and financial reporting for certain asset retirement obligations (AROs) associated with the retirement of a tangible capital asset.

- GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, which improves the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements.

The implementation of these statements did not have a material effect on GWA's financial statements. However, the implementation of GASB Statement No. 88 did result in additional required disclosures surrounding debt.

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*, which establishes criteria for identifying fiduciary activities of all state and local governments. The provisions in Statement No. 84 are effective for fiscal years beginning after December 15, 2018. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

SIGNIFICANT ACCOUNTING POLICIES, CONTINUED

In June 2017, GASB issued Statement No. 87, *Leases*, which establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The provisions in Statement No. 87 are effective for fiscal years beginning after December 15, 2019. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. The provisions in Statement No. 89 are effective for fiscal years beginning after December 15, 2019. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

In August 2018, GASB issued Statement No. 90, *Majority Equity Interests - an Amendment of GASB Statements No. 14 and No. 61,* which improves the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and the relevance of financial statement information for certain component units. The provisions in Statement No. 90 are effective for fiscal years beginning after December 15, 2018. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations*, which clarifies the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. The provisions in Statement No. 91 are effective for fiscal years beginning after December 15, 2020. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

We have evaluated the significant qualitative aspects of GWA's accounting practices, including accounting policies, accounting estimates and financial statement disclosures and concluded that the policies are appropriate, adequately disclosed, and consistently applied by management.

OTHER INFORMATION IN THE ANNUAL REPORTS OF GWA

When audited financial statements are included in documents containing other information, such as Annual Reports, we will read such other information and consider whether it, or the manner of its presentation, is materially inconsistent with the information, or the manner of its presentation, in the financial statements audited by us. In the event that GWA issues an Annual Report or other documentation that includes the audited financial statements, we will be required to read the other information in GWA's 2019 Annual Report and will inquire as to the methods of measurement and presentation of such information. If we note a material inconsistency or if we obtain any knowledge of a material misstatement of fact in the other information, we will discuss this matter with management and, if appropriate, with the CCU.

DISAGREEMENTS WITH MANAGEMENT

We have not had any disagreements with management related to matters that are material to GWA's 2019 financial statements.

OUR VIEWS ABOUT SIGNIFICANT MATTERS THAT WERE THE SUBJECT OF CONSULTATION WITH OTHER ACCOUNTANTS

We are not aware of any consultations that management may have had with other accountants about auditing and accounting matters during 2019.

SIGNIFICANT FINDINGS OR ISSUES DISCUSSED, OR SUBJECT OF CORRESPONDENCE, WITH MANAGEMENT PRIOR TO OUR RETENTION

Throughout the year, routine discussions were held, or were the subject of correspondence, with management regarding the application of accounting principles or auditing standards in connection with transactions that have occurred, transactions that are contemplated, or reassessment of current circumstances. In our judgment, such discussions or correspondence were not held in connection with our retention as auditors.

OTHER SIGNIFICANT FINDINGS OR ISSUES ARISING FROM THE AUDIT DISCUSSED, OR SUBJECT OF CORRESPONDENCE, WITH MANAGEMENT

Throughout the year, routine discussions were held, or were the subject of correspondence, with management. In our judgment, such discussions or correspondence did not involve significant findings or issues requiring communication to the CCU.

SIGNIFICANT DIFFICULTIES ENCOUNTERED IN PERFORMING THE AUDIT

In our judgment, we received the full cooperation of GWA's management and staff and had unrestricted access to GWA's senior management in the performance of our audit.

MANAGEMENT'S REPRESENTATIONS

We have made specific inquiries of GWA's management about the representations embodied in the financial statements. Additionally, we have requested that management provide to us the written representations GWA is required to provide to its independent auditors under generally accepted auditing standards. We have attached to this letter, as Attachment II, a copy of the representation letter we obtained from management.

CONTROL-RELATED MATTERS

We have issued a separate report to you, dated May 14, 2020, on GWA's internal control over financial reporting and on its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters, which was based upon the audit performed in accordance with *Government Auditing Standards*. We have also issued a separate report to you, also dated May 14, 2020, involving GWA's compliance with requirements applicable to its sole major program and on internal control over compliance in accordance with OMB Uniform Guidance.

We have identified and included in Attachment III, certain deficiencies related to GWA's internal control over financial reporting that we identified during our audit.

The definition of a deficiency is also set forth in Attachment III.

A description of the responsibility of management for establishing and maintaining internal control over financial reporting and of the objectives of and inherent limitations of internal control over financial reporting, is set forth in the attached Attachment IV and should be read in conjunction with this report.

We have communicated to management, in a separate letter also dated May 14, 2020, certain deficiencies and other matters related to GWA's internal control over its information technology environment that we identified during our audit. Although we have included management's written responses to our comments, where applicable, such responses have not been subjected to the auditing procedures applied in our audit of the financial statements and, accordingly, we do not express an opinion or provide any form of assurance on the appropriateness of the responses or the effectiveness of any corrective actions described therein.

Guam Waterworks Authority
Summary of Corrected Misstatements
September 30, 2019

GL Code	Name	Debit	Credit
	1 AJE To adjust net pension for FY19		
280.01	Deferred Inflows fr Pension	425,371.00	
920.30258	Pensions (DB) - Inclusions		1,108,026.00
187.02	Deferred Outflows fr Pension	4,824,474.00	
224.9	Unfunded Retire GASB67/68		4,141,819.00
	To adjust net pension, deferred outflows, deferred inflows, and pension expense related to GASB 68 and 73 for FY2019	5,249,845.00	5,249,845.00
	2 AJE To adjust OPEB liability for FY19		
224.10	OPEB Liability	26,294,256.00	
280.02	Deferred Inflows from OPEB		23,016,162.45
187.05	Deferred Outflows from OPEB		2,088,617.76
920.30270DT	OPEB expense		1,189,475.79
	To adjust FY19 net OPEB liability, deferred inflow of resources and deferred outflow of resources	26,294,256.00	26,294,256.00

Signed: _____
Taling M. Taitano, CPA, CGFM, CGMA
Chief Financial Officer

Signed: _____
Gilda M. Mafnas, Assistant Chief Financial Officer

Signed: _____
Sandra J. Santos, Controller

GUAM WATERWORKS AUTHORITY

"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290

May 14, 2020

Deloitte & Touche LLP
361 South Marine Drive
Tamuning, Guam 96913

Gentlemen:

We are providing this letter in connection with your audits of the statements of net position of Guam Waterworks Authority (GWA), a component unit of the Government of Guam (GovGuam), as of September 30, 2019 and 2018, and the related statements of revenues, expenses and changes in net position and of cash flows for the years then ended, and the related notes to the financial statements, which collectively comprise GWA's financial statements for the purpose of expressing an opinion as to whether the financial statements present fairly, in all material respects, the financial position, results of operations or change in net position, and cash flows of GWA in accordance with accounting principles generally accepted in the United States of America (GAAP).

We confirm that we are responsible for the following:

a. The preparation and fair presentation in the financial statements of financial position, results of operations, and cash flows, in accordance with GAAP.

b. 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

   - To prevent and detect fraud

c. The review and approval of the financial statements, accompanying schedules and related notes and acknowledge your role in the preparation of this information. Specifically, we acknowledge that your role in the preparation of the financial statements was a matter of convenience rather than one of necessity. We have reviewed the financial statement preparation assistance provided by you and acknowledge that the financial statements are prepared in accordance with GAAP. Our review was based on the use of the stand-alone business-type activities checklist by the Government Finance Officers Association.

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm, to the best of our knowledge and belief, the following representations made to you during your audits.

1. The financial statements referred to above are fairly presented in accordance with GAAP. In addition:

   a. Net position components (net investment in capital assets; restricted; and unrestricted) are properly classified and, if applicable, approved.

   b. Deposits are properly classified in the category of custodial credit risk.

   c. Capital assets, including infrastructure assets, are properly capitalized, reported, and, if applicable, depreciated.

   d. Required supplementary information is measured and presented within prescribed guidelines.

   e. GWA's policy regarding whether to first apply restricted or unrestricted resources when an expense is incurred for purposes for which both restricted and unrestricted net position is available and appropriately disclosed and that net position is properly recognized under the policy.

2. GWA has provided to you all relevant information and access as agreed in the terms of the audit engagement letter.

3. GWA has made available to you:

   a. Summaries of actions of the Consolidated Commission on Utilities as documented at http://guamccu.org/ccu-documents/.

   b. All financial records and related data for all financial transactions of GWA and for all funds administered by GWA. The records, books, and accounts, as provided to you, record the financial and fiscal operations of all funds administered by GWA and provide the audit trail to be used in a review of accountability. Information presented in financial reports is supported by the books and records from which the financial statements have been prepared.

   c. Contracts and grant agreements (including amendments, if any) and any other correspondence that has taken place with federal agencies.

   d. All Public Utilities Commission (PUC) Orders impacting GWA during the year and up to the report date.

4. There has been no:

   a. Actions taken by GWA management that contravene the provisions of federal laws and Guam laws and regulations, or of contracts and grants applicable to GWA.

   b. Communications from regulatory agencies concerning noncompliance with or deficiencies in financial reporting practices or other matters that could have a material effect on the financial statements.

5. We believe the effects of any uncorrected financial statement misstatements aggregated by you during the current audit engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole. A summary of such uncorrected misstatements has been attached as Appendix A.

6. We believe the effects of the uncorrected financial statement misstatements detected in the current year that relate to the prior year presented, when combined with those misstatements aggregated by you during the prior year audit engagement and pertaining to the prior year presented, are immaterial, both individually and in the aggregate, to the financial statements for the year ended September 30, 2018 taken as a whole. A summary of such uncorrected misstatements has been attached as Appendix B.

7. GWA has not performed a formal risk assessment, including the assessment of the risk that the financial statements may be materially misstated as a result of fraud. However, management has made available to you its understanding about the risks of fraud in GWA and does not believe that the financial statements are materially misstated as a result of fraud.

8. We have no knowledge of any fraud or suspected fraud affecting GWA involving:

   a. Management.

   b. Employees who have significant roles in GWA's internal control.

   c. Others, where the fraud could have a material effect on the financial statements.

9. We have no knowledge of any allegations of fraud or suspected fraud affecting GWA's financial statements communicated by employees, former employees, analysts, regulators, or others.

10. There are no unasserted claims or assessments that legal counsel has advised us are probable of assertion and must be disclosed in accordance with GASB Codification of Governmental Accounting and Financial Reporting Standards ("GASB Codification") Section C50, *Claims and Judgments*, except as disclosed Note 12 to the financial statements.

11. Significant assumptions used by us in making accounting estimates are reasonable.

12. We are responsible for the preparation of the Schedule of Expenditures of Federal Awards in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("OMB Uniform Guidance"). We have identified and disclosed all of the Entity's government programs and related activities subject to the OMB Uniform Guidance compliance audit. In addition, we have accurately completed the appropriate sections of the data collection form.

13. We are responsible for compliance with local, state, and federal laws, rules, and regulations, including compliance with the requirements of OMB Uniform Guidance, and provisions of grants and contracts relating to GWA's operations. We are responsible for establishing and maintaining the components of internal control relating to our activities in order to achieve the objectives of providing reliable financial reports, effective and efficient operations, and compliance with laws and regulations. GWA is responsible for maintaining accounting and administrative control over revenues, obligations, expenditures, assets, and liabilities.

14. We are responsible for establishing and maintaining, and have established and maintained, effective internal control over compliance for federal programs that provides reasonable assurance that we are managing federal awards in compliance with laws, regulations, and provisions of contracts or grant agreements that could have a material effect on its federal programs.

15. We have disclosed to you all deficiencies in the design or operation of internal control over financial reporting identified as part of our evaluation, including separately disclosing to you all such deficiencies that are significant deficiencies or material weaknesses in internal control over financial reporting.

16. No events have occurred subsequent to September 30, 2019 that require consideration as adjustments to or disclosures in the schedule of expenditures of federal awards and related notes or that existed at the end of the reporting period that affect noncompliance during the reporting period.

17. We have disclosed all known noncompliance with direct and material compliance requirements occurring subsequent to September 30, 2019.

18. No changes in internal control over compliance or other factors that might significantly affect internal control, including any corrective actions taken by GWA with regard to significant deficiencies and material weaknesses in internal control over compliance, have occurred subsequent to September 30, 2019.

19. Federal awards expenditures have been charged in accordance with applicable cost principles.

20. The Reporting Package submitted to the Federal Audit Clearinghouse (FAC) as defined by the Uniform Grant Guidance section 2CFR200.512(3)(c) does not contain protected personally identifiable information.

21. We have disclosed all contracts or other agreements with service organizations.

22. We have disclosed to you all communications from service organizations relating to noncompliance with the requirements of federal statutes, regulations, and terms and conditions of federal awards at those organizations.

23. We have:

    a. Identified and disclosed to you the requirements of federal statutes, regulations, and the terms and conditions of federal awards that are considered to have a direct and material effect on each major program under audit.

    b. Complied, in all material respects, with the direct and material compliance requirements identified above in connection with federal awards.

    c. Identified and disclosed interpretations of any compliance requirements that have varying interpretations.

    d. Made available all federal awards (including amendments, if any) and any other correspondence relevant to federal programs and related activities that have taken place with federal agencies or pass-through entities. Management has made available all documentation related to compliance with the direct and material compliance requirements, including information related to federal program financial reports and claims for advances and reimbursements. Federal financial reports and claims for advances and reimbursements are supported by the books and records from which the financial statements have been prepared and are prepared on a basis consistent with that presented in the Schedule of Expenditures of Federal Awards. The copies of federal program financial reports provided are true copies of the reports submitted, or electronically transmitted, to the federal agency or pass-through Entity, as applicable.

    e. Identified and disclosed all amounts questioned and all known noncompliance with the direct and material compliance requirements of federal awards, including the results

of other audits, program reviews, or any communications from federal awarding agencies and pass-through entities concerning possible noncompliance related to the objectives of the audit.

f. Identified previous financial audits, attestation engagements, performance audits, or other studies related to the objectives of the audit and the corrective actions taken to address significant findings and recommendations, including the status of follow-up on prior audit findings (and information about all management decisions) by federal awarding agencies and pass-through entities.

g. Provided to you our views on the reported findings, conclusions, and recommendations for your report.

24. Management has identified and disclosed to you all laws and regulations that have a direct and material effect on the determination of financial statement amounts.

25. GWA's final version of our annual report containing the audited financial statements and your auditor's report thereon will be provided to you when available, and prior to its issuance.

Except where otherwise stated below, immaterial matters less than $250,000 collectively are not considered to be exceptions that require disclosure for the purpose of the following representations. This amount is not necessarily indicative of amounts that would require adjustment to, or disclosure in, the financial statements.

26. Except as listed in Appendix A and Appendix B, there are no transactions that have not been properly recorded in the accounting records underlying the financial statements.

27. GWA has no plans or intentions that may affect the carrying value or classification of assets and liabilities.

28. Regarding related parties:

a. We have disclosed to you the identity of GWA's related parties and all the related party relationships and transactions of which we are aware.

b. To the extent applicable, related parties and all the related-party relationships and transactions, including sales, purchases, loans, transfers, leasing arrangements, and guarantees (written or oral) have been appropriately identified, properly accounted for, and disclosed in the financial statements.

29. In preparing the financial statements in accordance with GAAP, management uses estimates. All estimates have been disclosed in the financial statements for which known information available prior to the issuance of the financial statements indicates that both of the following criteria are met:

a. It is at least reasonably possible that the estimate of the effect on the financial statements of a condition, situation, or set of circumstances that existed at the date of the financial statements will change in the near term due to one or more future confirming events.

b. The effect of the change would be material to the financial statements.

30. Risks associated with concentrations, based on information known to management, that meet all of the following criteria have been disclosed in the financial statements:

a. The concentration exists at the date of the financial statements.

b. The concentration makes the enterprise vulnerable to the risk of a near-term severe impact.

c. It is at least reasonably possible that the events that could cause the severe impact will occur in the near term.

31. There are no:

a. Instances of identified or suspected noncompliance with laws or regulations whose effects should be considered when preparing the financial statements.

b. Known actual or possible litigation and claims whose effects should be considered when preparing the financial statements and that have not been disclosed to you and accounted for and disclosed in accordance with GAAP.

c. Other liabilities or gain or loss contingencies that are required to be accrued or disclosed by GASB Codification Section C50, *Claims and Judgments.*

32. During the year ended September 30, 2019, GWA implemented the following pronouncements:

- GASB Statement No. 83, *Certain Asset Retirement Obligations*, which addresses accounting and financial reporting for certain asset retirement obligations (AROs) associated with the retirement of a tangible capital asset.

- GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, which improves the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements

The implementation of these statements did not have a material effect on GWA's financial statements. However, the implementation of GASB Statement No. 88 did result in additional required disclosures surrounding debt.

33. In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*, which establishes criteria for identifying fiduciary activities of all state and local governments. The provisions in Statement No. 84 are effective for fiscal years beginning after December 15, 2018. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

34. In June 2017, GASB issued Statement No. 87, *Leases*, which establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The provisions in Statement No. 87 are effective for fiscal years beginning after December 15, 2019. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

35. In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. The provisions in Statement No. 89 are effective for fiscal years beginning after December 15, 2019. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

36. In August 2018, GASB issued Statement No. 90, *Majority Equity Interests - an Amendment of GASB Statements No. 14 and No. 61,* which improves the consistency and comparability of reporting a government's majority equity interest in a legally separate

organization and the relevance of financial statement information for certain component units. The provisions in Statement No. 90 are effective for fiscal years beginning after December 15, 2018. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

37. In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations*, which clarifies the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. The provisions in Statement No. 91 are effective for fiscal years beginning after December 15, 2020. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

38. GWA has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset been pledged as collateral.

39. GWA has complied with all aspects of contractual agreements that would have an effect on the financial statements in the event of noncompliance, including all requirements associated with the 2010, 2013, 2014, 2016 and 2017 Series bonds.

40. No department or agency of the Federal Government or GovGuam has reported a material instance of noncompliance to us.

41. GWA has identified all derivative instruments as defined by GASB Codification Section D40, *Derivative Instruments*, and appropriately recorded and disclosed such derivatives in accordance with GASB Codification Section D40.

42. Arrangements with financial institutions involving compensating balances or other arrangements involving restrictions on cash balances, line of credit, or similar arrangements have been properly disclosed in the financial statements.

43. Financial instruments with significant individual or group concentration of credit risk have been appropriately identified, properly recorded, and disclosed in the financial statements.

44. Receivables recorded in the financial statements represent valid claims against debtors for sales or other charges arising on or before September 30, 2019 and have been appropriately reduced to their estimated net realizable value.

45. Any billing collection is applied to the oldest balance. The Customer Care & Billing (CC&B) system is configured to pay delinquent high priority debt first for all customer classes wherein debt is relieved based on the age of the arrears. The CC&B system has not been designed for invoice matching.

46. Provision has been made to reduce excess or obsolete inventories to their estimated net realizable value. All inventories are the property of GWA and do not include any items consigned to it.

47. We believe that all expenditures that have been deferred to future periods are recoverable.

48. All additions to GWA's property accounts consist of replacements or additions that are properly capitalizable.

49. There were no items of physical property contained in the property accounts of GWA that were either (a) abandoned or (b) out of service and not regarded as either (i) standby

property or equipment or (ii) property held for use only temporarily out of service, as that term is commonly understood in the public utility business.

50. We believe that the actuarial assumptions and methods used to measure pension liabilities and costs for financial accounting purposes are appropriate in the circumstances. These amounts have been appropriately recognized and displayed as assets, liabilities and, where applicable, deferred inflows, deferred outflows, net position and changes in net position in the financial statements in accordance with GASB Codification Section P20, Pension Activities - Reporting for Benefits Provided through Trusts that Meet Specified Criteria - Defined Benefit, GASB Codification Section P21, Pension Activities - Reporting for Benefits Provided through Trusts that Meet Specified Criteria - Defined Contribution, GASB Codification Section P22, Pension Activities - Reporting for Benefits not Provided through Trusts that Meet Specified Criteria - Defined Benefit, GASB Codification Section P23 – Reporting Assets Accumulated for Defined Benefit Pensions not Provided through Trusts that Meet Specified Criteria, and GASB Codification Section P24, Pension Activities - Reporting for Benefits not Provided through Trusts that Meet Specified Criteria - Defined Contribution.

51. We believe that the actuarial assumptions and methods used to measure other post-employment benefit liabilities are appropriate in the circumstances. These amounts have been appropriately recognized and displayed as assets, liabilities, deferred inflows, deferred outflows, net position and changes in net position in the financial statements in accordance with GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which replaces the requirements of Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans.*

52. We have no intention of terminating our participation in the GovGuam Retirement plans or taking any other action that could result in an effective termination or reportable event for any of the plans. We are not aware of any occurrences that could result in the termination of any of our pension plans to which we contribute.

53. No evidence of fraud or dishonesty in fiscal operations of programs administered by GWA has been discovered.

54. In 1991, Public Law 21-59 was enacted to establish a bonus system for employees of GovGuam, autonomous and semi-autonomous agencies, public corporations and other public instrumentalities of GovGuam who earn a superior performance grade. The bonus is calculated at 3.5% of the employee's base salary beginning 1991. On September 17, 2013, the CCU, in GWA Resolution 42-FY2013, authorized the payment of merit bonuses in the years succeeding the CCU's approval to all eligible classified employees in accordance with the laws of Guam.

    On October 20, 2017, CCU Resolution 01-FY2018 approved the creation and addition of GWA Certified, Technical and Professional (CTP) positions and the implementation of a Strategic Pay Scale for such positions as authorized by Public Law 28-159. The conversion to the CTP positions and pay scale from the unified system of position classification and compensation eliminated merit bonuses. GWA believes that no liability may ultimately arise from this matter and therefore no liability has been recognized in the financial statements.

55. In 2002, the United States Government filed a complaint against GWA and GovGuam for alleged violations under the Federal Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA). Because of GWA's non-compliance with the National Primary Drinking Water Regulations, the U.S. Government is seeking both civil penalties and injunctive relief to address such non-compliance. GWA and the U.S. Department of Justice, Environmental

and Natural Resources Division, mutually agreed in the form of Court Order to resolve the violation issues.

On June 5, 2003, a Court Order for Preliminary Relief was filed before the District Court of Guam. The Stipulation requires implementation of short-term projects and initial planning measures by GWA. GWA is required to submit a final financial plan in the Master Plan that generates sufficient revenue to cover the cost of all compliance activities and deliverables required by the Court Order for Preliminary Relief, as well as any other anticipated expenses, including any measures necessary to ensure compliance with the CWA and the SDWA and costs related to the infrastructure improvements identified in the Master Plan.

In 2006, the Court Order was amended which required GWA to perform approximately $220 million of capital improvement projects and perform other actions to bring GWA's system into compliance. However, GWA was unable to meet all deadlines set out in the amended Court Order. The District Court ordered the parties to stipulate as to scope of remaining projects and project completion dates; however, the parties were unable to reach an agreement on all items. As a result, on November 10, 2011, the District Court issued an order setting new deadlines for the unfinished projects and establishing new projects that were not part of the amended Court Order. As of September 30, 2019, of the 93 items required by the Court Order, 92 items are either complete or in progress (e.g., continuous reporting requirement) except for one delayed project related to the repair, rehabilitation or replacement of water reservoirs estimated to cost $42 million. This project cannot move forward until the 2020 Series Revenue Bonds have been issued and funds become available.

56. On November 29, 2011, the United States Environmental Protection Agency (USEPA) informed GWA that its primary treatment permits for the Hagatna and Northern District Wastewater Treatment Plants had been denied and that GWA would be required to upgrade the plants to secondary treatment. The upgrades have been estimated to cost approximately $300 million. GWA intends to negotiate with the USEPA on the timelines for upgrading the plants, which may be deferring the upgrades for approximately 20 to 30 years. GWA is currently constructing upgrades to the Northern District Wastewater Treatment Plant which will bring the plant into compliance with secondary treatment requirements in 2021. GWA is also currently negotiating with the USEPA on the timelines for upgrading the Hagatna plant, which may be deferring the upgrades for approximately 20 to 30 years.

57. On March 11, 2020, the World Health Organization declared the novel strain of coronavirus (COVID-19) a global pandemic and recommended containment and mitigation measures worldwide. On March 13, 2020, President Donald J. Trump declared a national emergency within the United States. In response to the national emergency declared by the U.S. President, on March 14, 2020, Governor Lourdes A. Leon Guerrero issued Executive Order 2020-03 declaring a state of emergency in response to COVID-19. Further, Executive Order 2020-04 ordered the closure of all non-essential Government of Guam offices, prohibited large gatherings, and restricted entry into Guam from countries with confirmed COVID-19 cases. As a result, schools and non-essential government agencies and businesses have closed. GWA has closed its offices to the public and has required all non-essential employees to work from home. While the disruption is currently expected to be temporary, there is uncertainty around the duration. Therefore, while GWA expects this matter to negatively impact our business, results of operations, and financial position, the GWA is of the opinion that the related financial impact cannot be reasonably estimated at this time.

58. Other than matters that have already been disclosed in the financial statements for year ending September 30, 2019, no additional events have occurred after September 30, 2019, but before May 14, 2020, the date the financial statements were available to be

issued that require consideration as adjustments to, or disclosures in the financial statements.

59. Regarding required supplementary information:

    a. We confirm that we are responsible for the required supplementary information.

    b. The required supplementary information is measured and presented in accordance with GASB Codification Section 2200, *Comprehensive Annual Financial Report.*

    c. The methods of measurement and presentation of the supplementary information have not changed from those used in the prior period.

60. Regarding supplementary information:

    a. We are responsible for the fair presentation of the supplementary information in accordance with GAAP.

    b. We believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP.

    c. The methods of measurement and presentation of the supplementary information have not changed from those used in the prior period.

Very truly yours,

Joseph T. Duenas
Chairman, Consolidated Commission on Utilities

Miguel C. Bordallo
General Manager

Taling M. Taitano
Chief Financial Officer

APPENDIX A

Guam Waterworks Authority
Summary of Uncorrected Misstatements
Year Ended September 30, 2019

	Assets		Liabilities		Income	
	Dr.	(Cr.)	Dr.	(Cr.)	Dr.	(Cr.)
To adjust understatement of current year grant accrual	170,464					(170,464)
To correct overstatement of receivables		(368,635)			368,635	
To adjust understatement in the deferred outflow in relation to the difference in contribution for pension actuarial report		(336,919)	332,554		4,365	
To accrue contingent liability				(25,424)	25,424	
	170,464	(705,554)	332,554	(25,424)	398,424	(170,464)

APPENDIX B

Guam Waterworks Authority
Summary of Uncorrected Misstatements
Year Ended September 30, 2018

	Assets		Liabilities		Income	
	Dr.	(Cr.)	Dr.	(Cr.)	Dr.	(Cr.)
To adjust overstatement of prior year grant accrual		(180,426)			180,426	
To adjust understatement of prior year equipment rental expense				(134,430)	134,430	
To adjust understatement of deferred outflow in relation to DB 1.75 contribution	1,116,951					(1,116,951)
To accrue contingent liability				(579,335)	579,335	
	1,116,951	(180,426)	-	(713,765)	894,191	(1,116,951)

SECTION I – DEFICIENCY

We identified the following deficiencies involving GWA's internal control over financial reporting for the year ended September 30, 2019 that we wish to bring to your attention at this time:

Allowance for Doubtful Accounts

For the year ended September 30, 2019, GWA recorded $2,217,121 of additional bad debt expense. However, a potential $368,635 understatement of the allowance is included in the summary of uncorrected misstatements.

We recommend that management consider reassessment of long outstanding receivables.

SECTION II – DEFINITION

The definition of a deficiency is as follows:

A *deficiency in internal control over financial reporting* 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 deficiency in design exists when (a) a control necessary to meet the control objective is missing or (b) an existing control is not properly designed so that, even if the control operates as designed, the control objective would not be met. A deficiency in operation exists when (a) a properly designed control does not operate as designed, or (b) the person performing the control does not possess the necessary authority or competence to perform the control effectively.

MANAGEMENT'S RESPONSIBILITY FOR, AND THE OBJECTIVES AND LIMITATIONS OF, INTERNAL CONTROL OVER FINANCIAL REPORTING

The following comments concerning management's responsibility for internal control over financial reporting and the objectives and inherent limitations of internal control over financial reporting are adapted from auditing standards generally accepted in the United States of America.

Management's Responsibility

GWA's management is responsible for the overall accuracy of the financial statements and their conformity with generally accepted accounting principles. In this regard, management is also responsible for establishing and maintaining effective internal control over financial reporting.

Objectives of Internal Control over Financial Reporting

Internal control over financial reporting is a process affected by those charged with governance, management, and other personnel and designed to provide reasonable assurance about the achievement of the entity's objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations. Internal control over the safeguarding of assets against unauthorized acquisition, use, or disposition may include controls related to financial reporting and operations objectives. Generally, controls that are relevant to an audit of financial statements are those that pertain to the entity's objective of reliable financial reporting (i.e., the preparation of reliable financial statements that are fairly presented in conformity with generally accepted accounting principles).

Inherent Limitations of Internal Control over Financial Reporting

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.