



GUAM **WATERWORKS** AUTHORITY

ANNUAL REPORT

2016

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A Message from:

The Chairman of the Board of the Consolidated Commission on Utilities (CCU)

CCU Board of Directors (left to right): *Francis Santos* (Vice Chair, Chairman of Finance and Budget Committee), *Simon Sanchez II* (Chairman of the Board 2003-2014), *Joseph (Joey) T. Duenas* (Chairman of the Board 2016), *J. George Bamba* (Secretary, Chairman of IT and Cyber Security Committee), *Pedro S.N. Guerrero* (Treasurer, Chairman of Audit Committee)



Buenas Yan Hafa Adai,

The enactment of Public Law 26-76, which created the Consolidated Commission on Utilities (CCU) as the policy-making body for the Guam Power Authority (GPA) and the Guam Waterworks Authority (GWA), changed both organizations to municipal utilities in charge of their finances and focused on their core missions of delivering services as economically, efficiently and safely as possible to island ratepayers.

The CCU serves two constituent groups. The first and main constituents are the ratepayers of GPA and GWA — the true owners of these utilities. The CCU commissioners work together to balance the needs of ratepayers for quality utility services and their ability to pay for these services. This is the main challenge for the CCU. There are no simple or quick and easy solutions. The success of GPA and GWA will take a business model that is founded on the principle of continually building ratepayer confidence in the integrity of both utilities to deliver reliable services, while keeping rates as low as possible. Building ratepayer confidence in the integrity of the utilities means that that the CCU must ensure that all its ratepayers (residents, businesses and both the federal & the local governments) know and believe that we will treat them all equally. The ratepayers must know that they will be billed accurately and timely for services. In addition, they will all be expected to pay in a timely manner, so that no ratepayer will be allowed to become so delinquent as to cause harm to the utilities and their fellow ratepayers.

Our second constituents are the employees of GPA and GWA. These dedicated, hardworking employees deserve a good, safe working environment. They need to be assured that they will have the ability to provide for their families. These employees are the most important asset of our utilities. They must be motivated to be conscientious, hardworking and frugal with ratepayer funds.

It is my sincere belief that my fellow commissioners are intelligent, well-educated and dedicated people serving our constituents and truly representative of the people who elected us.

Put Respetu,

Joseph “Joey” T. Duenas
Chairman of the Board

A Message from:

The Chairman of the Committee on Infrastructure



Senator Thomas C. Ada

Hafa Adai,

It was an honor to serve you as Chairman of the Committee on Infrastructure, 33rd Legislature. The year 2016 was another successful year for the Guam Waterworks Authority, and congratulations for a job well done is well deserved by the men and women in the company.

This past year saw GWA begin work on constructing a new compliance laboratory, and break ground on three large reservoir tanks in Yigo and Dededo, both projects of which will improve services in the long term, to ratepayers. And, the assumption of operational control of the Tumon Maui Well from the Department of the Navy was also the result of successful negotiations and dialogue at all levels. The latter milestone was both a big step toward fully integrating GWA and military water and wastewater systems, and a demonstration of the military's confidence in GWA's expertise and abilities. These accomplishments were the result of effective collaboration between GWA, CCU, and the Legislature.

Perhaps most significant of all, in March of last year GWA sold over \$143M in revenue bonds to finance long-term, system-wide infrastructure improvements, at an interest rate lower than projected. This resulted in a savings of over \$12M to local ratepayers, and highlights the current strong state of the utility. This accomplishment could only have been achieved by GWA being able to demonstrate its investment worthiness.

I commend the leadership at GWA and the CCU, whose shared vision and dedication continues to guide the Authority to new heights. Most importantly, I applaud the tireless work of all employees of GWA. Day-in and day-out, your commitment and expertise enables the Authority to succeed. Our island is fortunate to have a first-class workforce propelling GWA forward.

I am proud of the legacy being created at the Guam Waterworks Authority. On behalf of all of us who make Guam our home, Si Yu'os Ma'ase.



Senator Thomas C. Ada
Chairman, Committee on Infrastructure
33rd Guam Legislature

A Message from:

The Chairperson of the Guam Waterworks Employees Association (GWEA)

GWEA 2016 Officers (left to right): **Roy Chargualaf**, **Lou Palomo** (Chairperson), **Evelyn Garcia** and **Robert Garrido**



Hafa Adai,

It has been my pleasure serving as your chairperson of the Guam Waterworks Employees Association (GWEA) for the 2015-2016 calendar years. GWEA was re-established in 2012, and I am proud to declare that we are still going strong, thanks to the ongoing financial contributions and hard work and commitment from its members.

Thank you to all the members of the GWEA and their families for allowing GWEA to be part of yours. Our challenge today is how to respond to ever-changing internal and external circumstances, as we continue our daily commitment to the community. I encourage each of you to take advantage of every opportunity to learn more, to get involved and to be proactive.

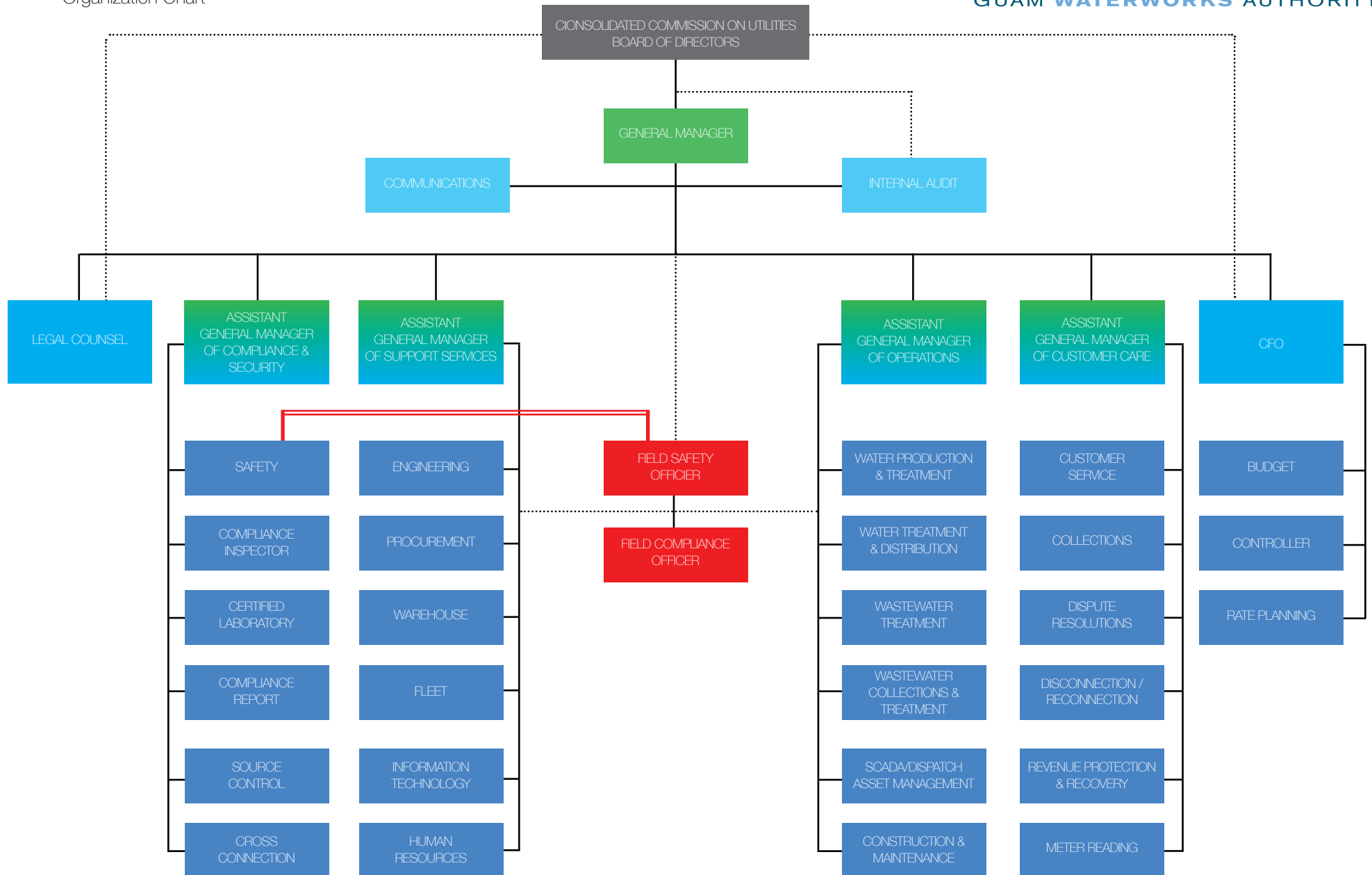
In closing, thank you for the opportunity. Now, I am privileged to introduce the GWEA elected officers for 2017-2018: Chairman Roy Chargualaf, Co-Chair Lou Palomo, Secretary Kathy Beleno, Treasurer Karen Grape and Sergeant-at-Arms Karla Tydingco. Collectively, they bring years of valuable knowledge, experience and talent to the association and its members. BIBA GWA!

Lou Palomo
GWEA Chairperson 2015-2016

Organization Chart



GUAM WATERWORKS AUTHORITY





GUAM **WATERWORKS** AUTHORITY

FINANCE



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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, 2016 and 2015, 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, 2016 and 2015, 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.



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 3 through 10 as well as the Schedule of Proportional Share of the Net Pension Liability on page 40, and the Schedule of Pension Contributions on page 41, 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 (GASB) 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.

Management has omitted the Schedule of Funding Progress and Actuarial Accrued Liability – Post Employment Benefits Other Than Pension that accounting principles generally accepted in the United States of America require to be presented to supplement the financial statements. Such missing information, although not a part of the financial statements, is required by GASB who considers it to be an essential part of the financial reporting for placing the financial statements in an appropriate operational, economic or historical context. Our opinion on the financial statements is not affected by this missing information.

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 Schedule of Net Position, Revenue, Expenses and Changes in Net Position for the System Development Charge Fund, and the Schedule of Operating Revenues on pages 42 through 45 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 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 46 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.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 13, 2017, 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 to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering GWA's internal control over financial reporting and compliance.

January 13, 2017

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

Notes to Financial Statements
September 30, 2016 and 2015

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, 2016. We encourage readers to consider the information presented here and in our basic financial statements, which begins on page 11.

Overview of the Financial Statements

This discussion and analysis 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 16 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 40 of this report.

Financial Condition and Results

The Authority's total net position increased by \$28.5 million during the fiscal year (see table below) primarily due to the \$37.9 million in operating income.

The net increase in current assets of about \$30.4 million is due to increases in restricted and unrestricted cash, materials and supplies inventory, and other receivables.

The net increase in property, plant and equipment of \$27.4 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 95.7% of total net position. The net amount invested in capital assets increased by \$5.3 million compared to prior year.

Summary Statement of Net Position

	September 30, 2016	September 30, 2015	September 30, 2014	2016 to 2015 Comparison	
				Increase/ (Decrease)	% Change
Current and other assets	\$ 402,532,025	\$ 248,055,723	\$ 264,751,640	\$ 154,476,302	62.27%
Property, plant and equipment, net	387,543,998	360,109,966	336,039,840	27,434,032	7.62%
Deferred outflows of resources	6,546,612	6,128,089	6,156,238	418,523	6.83%
Total assets and deferred outflows	<u>\$ 796,622,635</u>	<u>\$ 614,293,778</u>	<u>\$ 606,947,718</u>	<u>\$ 182,328,857</u>	29.68%
Current and other liabilities	\$ 60,331,039	\$ 56,371,599	\$ 61,451,578	\$ 3,959,440	7.02%
Long-term debt	542,555,913	389,165,861	396,569,482	153,390,052	39.42%
Deferred inflows of resources	-	3,568,590	2,303,348	(3,568,590)	-100.00%
Total liabilities and deferred inflows	<u>602,886,952</u>	<u>449,106,050</u>	<u>460,324,408</u>	<u>153,780,902</u>	34.24%
Net Position:					
Net investment in capital assets	185,367,498	180,072,079	180,655,378	5,295,419	2.94%
Restricted	18,917,644	15,898,661	12,934,743	3,018,983	18.99%
Unrestricted	(10,549,459)	(30,783,012)	(46,966,811)	20,233,553	-65.73%
Total net position	<u>193,735,683</u>	<u>165,187,728</u>	<u>146,623,310</u>	<u>28,547,955</u>	17.28%
Total liabilities, deferred inflows and net position	<u>\$ 796,622,635</u>	<u>\$ 614,293,778</u>	<u>\$ 606,947,718</u>	<u>\$ 182,328,857</u>	29.68%

Operating income increased 30.0% from the previous year, from \$29.2 million to \$37.9 million in FY2016. A combination of factors, as illustrated on page 13, contributed to the significant improvement but the increase was due largely to a 16.5% rate increase to non-lifeline water and wastewater rates in FY2016.

Much like in the previous fiscal years, operating revenues outpaced operating expenses in terms of the proportion of growth from the preceding year. GWA saw operating revenues improve from \$93.1 million to \$105.4 million in FY2016, or approximately 13.2%, while on the other hand, operating costs increased from \$64.0 million to \$67.5 million in FY2016, or a 5.5% increase from the previous year. The table below illustrates past trends dating back to FY2014.

Total operating revenues of \$105.4 million increased by \$12.2 million or 13.2% and operating expenses of \$67.5 million increased by \$3.5 million or 5.5% for the current year resulting in net operating income of \$37.9 million or 30.0% increase when compared to the prior year (see table below).

Water revenues (total) increased by \$7.4 million or 12.5% over the prior fiscal year. Residential and commercial customers accounted for most of the increase in FY2016.

Wastewater revenues also (total) increased by \$5.1 million or 15.0% over the prior fiscal year. Increases were observed in all customer classes except residential customers whose rates were not increased in FY2016.

Operating expenses are generally driven by power, water purchases and salaries expenses. Historically, these costs account for almost 2/3rd of O&M

expenses. In FY2016, O&M expenses increased, going from \$64.0 million in FY2015 to \$67.5 million in FY2016. The table below illustrates the changes among major cost components.

Operating expenses increased by \$3.5 million or 5.5% over the prior fiscal year. The contributing factors were increases in depreciation, contractual expenses, water purchases, waste disposal fees and administrative & general expenses. Notably, contractual expenses related to IT maintenance costs, generator repair & maintenance charges, and equipment & building rental increased in FY16 over FY15. Also, Navy water purchases increased due to a combination of; (1) approximately 58.7 thousand additional kgals of water purchases and (2) a 14% increase in the tariff. The increase in waste disposal fees culminated in 1,223 tons more sludge disposed in FY16 over FY15.

Net non-operating expenses increased by \$0.7 million. Interest expense increased by \$3.8 million but was largely offset by the \$3.1 million increase in non-operating revenues such as AFUDC and grants from the U.S. Government.

Pension expense increased about \$3.1 million due to the increase in the net pension liability.

A comparative analysis of Revenues, Expenses and Changes in Net Position, FY2014 – FY2016, is illustrated in the Table below:

Results of Operations/Statement of Revenues, Expenses and Changes in Net Position

	September 30, 2016	September 30, 2015	September 30, 2014	2016 to 2015 Comparison	
				Increase/ (Decrease)	% Change
Revenues:					
Water	\$ 66,941,486	\$ 59,518,287	\$ 53,241,495	\$ 7,423,199	12.47%
Wastewater	38,953,665	33,886,360	28,906,106	5,067,305	14.95%
Other	519,898	706,657	573,483	(186,759)	-26.43%
Bad debts	(1,034,310)	(980,243)	310	(54,067)	5.52%
Total operating revenue	<u>105,380,739</u>	<u>93,131,061</u>	<u>82,721,394</u>	<u>12,249,678</u>	13.15%
Expenses:					
Power purchases	11,225,884	14,026,448	16,426,402	(2,800,564)	-19.97%
Water purchases	6,374,035	5,098,872	5,179,240	1,275,163	25.01%
Sludge (waste) disposal fees	1,565,080	1,343,767	1,494,012	221,313	16.47%
Salaries, wages and benefits	18,486,407	16,168,167	17,991,125	2,318,240	14.34%
Depreciation	15,348,101	14,543,396	13,351,158	804,705	5.53%
Administrative and general	7,008,883	6,503,317	6,234,980	505,566	7.77%
Contractual	4,117,122	2,793,267	2,681,070	1,323,855	47.39%
Retiree healthcare costs and other benefits	<u>3,348,262</u>	<u>3,491,101</u>	<u>2,518,851</u>	<u>(142,839)</u>	-4.09%
Total operating expenses	<u>67,473,774</u>	<u>63,968,335</u>	<u>65,876,838</u>	<u>3,505,439</u>	5.48%
Net operating income	37,906,965	29,162,726	16,844,556	8,744,239	29.98%
Non-operating revenue (expenses)	9,793,775	6,680,260	(7,054,654)	3,113,515	46.61%
Less: Interest Expense	<u>(24,641,647)</u>	<u>(20,865,205)</u>	<u>(20,031,506)</u>	<u>(3,776,442)</u>	18.10%
Total non-operating revenues (expenses), net	<u>(14,847,872)</u>	<u>(14,184,945)</u>	<u>(27,086,160)</u>	<u>(662,927)</u>	4.67%
Income (loss) before capital contributions	23,059,093	14,977,781	(10,241,604)	8,081,312	53.96%
Capital contributions	<u>5,488,862</u>	<u>3,586,637</u>	<u>3,559,505</u>	<u>1,902,225</u>	53.04%
Change in net position	28,547,955	18,564,418	(6,682,099)	9,983,537	53.78%
Net position - beginning year	<u>165,187,728</u>	<u>146,623,310</u>	<u>153,305,409</u>	<u>18,564,418</u>	12.66%
Net position - end of year	<u>\$ 193,735,683</u>	<u>\$ 165,187,728</u>	<u>\$ 146,623,310</u>	<u>\$ 28,547,955</u>	17.28%

As noted earlier, revenue improvements during this period are largely attributable to rate increases in each of the respective fiscal years. The tables below illustrates the distribution of revenues among major customer classes:

As reported on the Statements of Net Position, the Authority's total net position increased by \$28.5 million during the fiscal year due to increase in unrestricted assets.

Management's Discussion and Analysis for the year ended September 30, 2015 is set forth in GWA's report on the audit of financial statements which is dated January 22, 2016. That Discussion and Analysis explains in more detail major factors impacting the 2015 financial statements. A copy of that report can be obtained by contacting the CFO.

Capital Assets

The Authority had \$387.5 million (net of accumulated depreciation) invested in a broad range of utility capital assets as of September 30, 2016. The investment in capital assets includes buildings, improvements, water treatment plants, filter plants, water transmission and distribution mains, water storage facilities, pump stations, wastewater treatment facilities, machinery and equipment (see Table below).

In the current fiscal year 2016, capital assets increased by \$27.4 million (net) or 7.6% over the prior fiscal year. The increase is attributable to ongoing major capital improvement projects associated with a 2011 Federal Court Order and GWA's five-year (FY15 to FY19) Capital Improvement Plan.

Annual Water Revenues (Excluding System Development Charges)

Class Type	FY16	FY15	FY14	2016 to 2015 Comparison	
				Increase (Decrease)	% Change
Agricultural	\$ 431,606	\$ 375,120	\$ 392,105	\$ 56,486	15.06%
Golf Course	97,990	84,844	55,369	13,146	15.49%
Commercial	13,736,890	12,529,070	10,581,895	1,207,820	9.64%
Federal	38,497	18,449	19,705	20,048	108.67%
Government	6,360,728	6,083,130	5,435,944	277,598	4.56%
Hotel	13,116,414	11,132,531	9,466,265	1,983,883	17.82%
Irrigation	59,481	18,425	38,822	41,056	222.83%
Residential	32,453,409	28,705,488	26,459,394	3,747,921	13.06%
TOTAL	\$ 66,295,015	\$ 58,947,057	\$ 52,449,499	\$ 7,347,958	12.47%

Annual WasteWater Revenues (Excluding System Development Charges)

Class Type	FY16	FY15	FY14	2016 to 2015 Comparison	
				Increase/ (Decrease)	% Change
Commercial	\$ 8,046,990	\$ 6,988,489	\$ 5,608,846	\$ 1,058,501	15.15%
Federal	6,580,018	4,926,563	4,171,820	1,653,455	33.56%
Government	3,375,762	3,325,856	2,309,397	49,906	1.50%
Hotel	11,698,441	9,266,983	7,548,103	2,431,458	26.24%
Residential	8,456,522	8,768,445	8,427,181	(311,923)	-3.56%
TOTAL	\$ 38,157,733	\$ 33,276,336	\$ 28,065,347	\$ 4,881,397	14.67%

The Authority's revenue, long-term debt, and grant-in-aid are used to finance capital investments. This year's major capital additions included:

WASTE WATER

Southern District Wastewater	\$ 31,000
Central District Wastewater	872,000
Others	<u>193,000</u>
	<u>\$1,096,000</u>

WATER

Water Booster Pump Station	\$558,000
General Plant Improvements	110,000
Line Replacement/Leak Repair Program	2,573,000
Mechanical/Electrical Equipment	229,000
Meter Programs	325,000
Ugum Water Treatment Plant Intake	176,000
Deepwell Rehabilitation	770,000
Tank Repair & Replacement Program	<u>7,397,000</u>
	<u>\$12,138,000</u>

Capital Assets, Net of Accumulated Depreciation

	September 30, 2016	September 30, 2015	As Restated September 30, 2014	2016 to 2015 Comparison Increase (Decrease)	% Change
Plant, buildings and equipment, net	\$ 305,412,149	\$ 307,154,511	\$ 280,801,599	\$ (1,742,362)	-0.57%
Land	254,288	64,288	64,288	190,000	295.55%
Construction in progress	<u>81,877,561</u>	<u>52,891,167</u>	<u>55,173,953</u>	<u>28,986,394</u>	<u>54.80%</u>
Total	<u>\$ 387,543,998</u>	<u>\$ 360,109,966</u>	<u>\$ 336,039,840</u>	<u>\$ 27,434,032</u>	<u>7.62%</u>

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

Debt

As of September 30, 2016, the Authority had total long-term debt outstanding of \$523.0 million, which is an increase of \$133.8 million or 25.6% over the prior year. On February 9, 2016, the Authority issued \$143.3 million Water and Wastewater System Revenue Bonds to fund capital improvement projects in connection with the financing of its 5 year Capital Improvement Plan.

The Authority is required by bond covenants to maintain principal, interest, and reserve funds for the

bond issue outstanding. In addition, the Authority is required to set rates and charges to yield revenues equal to at least 125% of the current annual debt service requirements of the outstanding 2010, 2013, 2014 and 2016 revenue bond series. The Public Utilities Commission set the requirement at 175%.

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 Bonds Series 2016. The ratings are important benchmarks of 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 rating 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.

Looking Forward

Outlook, Challenges, and Opportunities

GWA has undergone significant transformation. However, it continues to face challenges from the USEPA and other regulatory agencies, as well as from customers, to make needed improvements to the System on a timely basis. Considerable capital needs remain, much like previous years, for water supply reliability, water quality, leak detection, line repair, as well as improvements needed to accommodate growth in the island's population centers and normal renewals and replacement. Complying with requirements of the 2011 Federal Court Order will continue to be one of GWA's principal focus in 2017 and ensuing years.

Another equally important focal point in the coming years is a major upgrade to GWA's preventive maintenance program and asset management system. The need for a stepped-up program is at its highest point in light of major investments of more than \$500 million that GWA has put into replacing, rehabilitating and repairing its assets. With the assistance of its Federal partner, U.S. EPA, GWA successfully completed an inventory and condition assessment of major system assets and the acquisition of a computerized asset management and maintenance that will be the foundation for GWA transitioning from a reactive to a preventive maintenance mode and help the Authority focus its efforts and resources on assets needing the most attention, and build on the capacity to perform timely routine maintenance, inspections of equipment and facilities before they fail or develop into major costly repairs.

GWA anticipates a considerably increased outlay for O&M in FY2017, influenced for the most part by the escalated preventive maintenance effort noted

Long-Term Debt

	September 30, 2016	September 30, 2015	September 30, 2014	2016 to 2015 Comparison	
				Increase (Decrease)	% Change
2010 Bond Series	\$ 116,180,000	\$ 117,770,000	\$ 118,825,000	\$ (1,590,000)	-1.35%
2013 Bond Series	172,630,000	172,630,000	172,630,000	-	0.00%
2014 Refunding Bond Series	79,380,000	82,700,000	85,600,000	(3,320,000)	-4.01%
2016 Bond Series	143,310,000	-	-	143,310,000	100.00%
Bank Notes	11,452,191	14,197,776	17,511,563	(2,745,585)	-19.34%
Total	\$ 522,952,191	\$ 387,297,776	\$ 394,566,563	\$ 135,654,415	-35.03%

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

earlier. Significant increases are projected to come from contractual and A&G expenses to account for: (1) an increased supplies and materials inventory for critical parts and preventive maintenance supplies; (2) an expanded vehicle maintenance and replacement program in response to increased demands for working vehicles; (3) the recruitment of skill sets to perform timely inspections and maintenance of assets and lastly the marginal cost associated with an interim plan to outsource certain routine operational functions to improve efficiency until such time GWA develops and acquires the resources to carry out the activity.

Debt service costs will continue to constitute a significant and major element of GWA's expenses in FY2017. Approximately \$523.0 million is outstanding in long term debt. Debt service is approximately \$22.2 million per year, net of capitalized interest. The financings were undertaken by and large to comply with a 2011 Federal Court Order and to replace and or rehabilitate, old aging infrastructure. There will be continued impetus in 2017 and beyond to fund certain capital expenditures by way of revenue funds to help reduce the need to borrow for projects. This is pursuant to GWA's approved 2016-2020 rate plan

which embarked on a goal of generating approximately \$48 million during the five (5) year rate plan period.

Discussions on the build-up from the planned relocation of the U.S. military personnel from Japan to Guam continues to make progress. The U.S. Department of Defense (DoD) and GWA entered into a MOU whereas DoD will be responsible for all direct and indirect impacts resulting from the build-up.

The buildup is seen as directly impacting the Northern District Wastewater Treatment Plant. The plant is required to upgrade to secondary treatment by U.S. EPA. Discussions with U.S. EPA are on-going relative to scheduling. As of this writing, nothing significant has developed however DoD has offered to provide up to \$170 million to assist with the upgrade. Approximately \$105 of the \$170 million has already been appropriated and authorized to DoD and in August 2016, GWA was awarded three construction award grants totaling \$55.3 million for (1) the GWA Interceptor Sewer Refurbishment; (2) Upgrade of the Northern District Wastewater Treatment Plant; and (3) the Northern Guam Lens Aquifer Monitoring System Expansion and Rehabilitation.

GWA and DoD have also been in discussions regarding a One Guam framework that would give the Authority control over Navy water system assets. Implementing this plan will take time, but, GWA has already taken the first step towards the integration. In March 2016, DoD and GWA entered into three operating agreements: (1) to operate and maintain the Tumon Maui Well for the extraction of water up to 800 gpm which will increase capacity of water production (2) to operate and maintain Well No. 5 for the production of water intended to service Agafa Gumas and other northern parts of the island and (3) to install a waterline at Tarague Beach to provide water connection to landlocked property owners of Jinapsan beach. The integration also presents an opportunity for the Authority to assess its Water System capital needs in light of potential Navy assets that could improve System reliability and performance.

Plans for 2017 also includes continued funding of a Debt Service and Working Capital reserve to help achieve debt coverage requirements and help smooth the need for rate increases in the future. Since adoption of the reserve policies in May 2014, over \$15 million has been deposited into the reserves.

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, 578 N. Marine Corp Drive, Tamuning, GU 96913, or telephone (671) 300-6860.

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

Statements of Net Position
September 30, 2016 and 2015

<u>ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</u>	<u>2016</u>	<u>2015</u>
Current assets:		
Cash and cash equivalents:		
Unrestricted	\$ 9,777,260	\$ 5,504,949
Restricted	87,845,979	61,371,738
Receivables, net	16,709,227	17,548,957
Materials and supplies inventory, net of an allowance for obsolescence of \$457,370 at September 30, 2016 and 2015	2,269,775	1,777,241
Prepaid expenses	<u>652,000</u>	<u>646,748</u>
Total current assets	<u>117,254,241</u>	<u>86,849,633</u>
Property, plant and equipment:		
Utility plant in service:		
Water system	306,262,568	294,780,104
Wastewater system	259,512,407	258,799,236
Non-utility property	<u>22,474,787</u>	<u>21,612,653</u>
	588,249,762	575,191,993
Less accumulated depreciation	<u>(282,837,613)</u>	<u>(268,037,482)</u>
	305,412,149	307,154,511
Land	254,288	64,288
Construction work in progress	<u>81,877,561</u>	<u>52,891,167</u>
Property, plant and equipment, net	<u>387,543,998</u>	<u>360,109,966</u>
Other noncurrent assets:		
Restricted cash and cash equivalents	<u>285,277,784</u>	<u>161,206,090</u>
Total assets	<u>790,076,023</u>	<u>608,165,689</u>
Deferred outflows of resources:		
Debt defeasance loss on refunding	1,878,602	2,112,398
Deferred outflows from pension	<u>4,668,010</u>	<u>4,015,691</u>
Total deferred outflows of resources	<u>6,546,612</u>	<u>6,128,089</u>
Total assets and deferred outflows of resources	<u>\$ 796,622,635</u>	<u>\$ 614,293,778</u>

See accompanying notes to financial statements.

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

Statements of Net Position, Continued
September 30, 2016 and 2015

<u>LIABILITIES, DEFERRED INFLOWS OF RESOURCES</u> <u>AND NET POSITION</u>	<u>2016</u>	<u>2015</u>
Current liabilities:		
Current maturities of long-term debt:		
Revenue bonds payable	\$ 5,040,000	\$ 4,910,000
Note payable	2,873,988	2,737,804
Accounts payable:		
Guam Power Authority	1,164,722	933,386
Trade	2,224,191	3,180,040
Accrued interest	6,748,638	4,957,551
Accrued payroll and employee benefits	1,692,622	1,151,332
Current portion of employee annual leave	548,845	511,267
Payable to contractors	3,436,908	6,518,638
Customer deposits	2,228,235	1,997,941
Other liabilities	1,562,359	640,502
Total current liabilities	<u>27,520,508</u>	<u>27,538,461</u>
Long-term debt, less current maturities:		
Revenue bonds payable	526,063,722	370,058,085
Note payable	8,578,203	11,459,972
Employee annual leave, less current portion	887,084	892,695
DCRS sick leave liability	1,641,497	1,540,507
Net pension liability	38,195,938	34,047,740
Total liabilities	<u>602,886,952</u>	<u>445,537,460</u>
Deferred inflows of resources:		
Deferred inflows from pension	<u>- 0</u>	<u>3,568,590</u>
Commitments and contingencies		
Net position:		
Net investment in capital assets	185,367,498	180,072,079
Restricted	18,917,644	15,898,661
Unrestricted	<u>(10,549,459)</u>	<u>(30,783,012)</u>
Total net position	<u>193,735,683</u>	<u>165,187,728</u>
Total liabilities, deferred inflows of resources and net position	\$ <u>796,622,635</u>	\$ <u>614,293,778</u>

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, 2016 and 2015

	2016	2015
Operating revenues:		
Water:		
Private	\$ 58,162,503	\$ 50,917,880
Government	6,177,211	5,828,186
Legislative surcharge	1,959,204	2,200,991
System development charge	642,568	571,230
	<u>66,941,486</u>	<u>59,518,287</u>
Wastewater:		
Private	27,570,392	24,674,981
Government	9,658,388	8,004,316
Legislative surcharge	939,121	597,039
System development charge	785,764	610,024
	<u>38,953,665</u>	<u>33,886,360</u>
Other	519,898	706,657
Bad debts expense	(1,034,310)	(980,243)
Total operating revenues	<u>105,380,739</u>	<u>93,131,061</u>
Operating and maintenance expenses:		
Power purchases	11,225,884	14,026,448
Water purchases	6,374,035	5,098,872
Waste disposal fees	1,565,080	1,343,767
	<u>19,164,999</u>	<u>20,469,087</u>
Salaries, wages and benefits	18,486,407	16,168,167
Depreciation	15,348,101	14,543,396
Administrative and general	7,008,883	6,503,317
Contractual	4,117,122	2,793,267
Retiree healthcare costs and other benefits	3,348,262	3,491,101
Total operating and maintenance expenses	<u>67,473,774</u>	<u>63,968,335</u>
Operating income	<u>37,906,965</u>	<u>29,162,726</u>
Nonoperating revenues (expenses):		
Allowance for funds used during construction	13,708,441	9,791,856
Interest income	63,115	23,490
Interest expense	(24,641,647)	(20,865,205)
Loss on property, plant and equipment disposals	(49,796)	(222,012)
Federal expenditures	(1,058,262)	(2,691,636)
Others, net	(2,869,723)	(221,438)
Total nonoperating expenses, net	<u>(14,847,872)</u>	<u>(14,184,945)</u>
Income before capital contributions	<u>23,059,093</u>	<u>14,977,781</u>
Capital contributions:		
Grants from the U.S. Government	5,488,862	3,586,637
Change in net position	28,547,955	18,564,418
Net position at beginning of year	<u>165,187,728</u>	<u>146,623,310</u>
Net position at end of year	\$ <u>193,735,683</u>	\$ <u>165,187,728</u>

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, 2016 and 2015

	2016	2015
Cash flows from operating activities:		
Cash received from customers	\$ 107,244,584	\$ 91,084,696
Cash payments to suppliers for goods and services	(30,591,445)	(32,541,897)
Cash payments to employees for services	(17,884,871)	(19,375,443)
Cash payments on settlement agreements		
Cash payments for retiree healthcare costs	(3,348,262)	(3,491,101)
Net cash provided by operating activities	<u>55,420,006</u>	<u>35,676,255</u>
Cash flows from noncapital financing activities:		
Principal repayment of bank loan	- 0	(874,453)
Interest paid on bank loan	- 0	(28,377)
Net cash used for noncapital financing activities	<u>- 0</u>	<u>(902,830)</u>
Cash flows from capital and related financing activities:		
Federal grants received	3,636,780	723,181
Acquisition of property, plant and equipment	(32,205,217)	(27,479,943)
Proceeds from bond issuance	162,874,896	-
Principal paid on revenue bond maturities	(4,910,000)	(3,955,000)
Interest paid on revenue bonds	(26,606,602)	(19,418,723)
Principal repayment of bank loan	(2,745,585)	(2,439,334)
Interest paid on bank loan	(709,147)	(1,119,060)
Net cash provided by (used for) capital and related financing activities	<u>99,335,125</u>	<u>(53,688,879)</u>
Cash flows from investing activities:		
Net change in restricted cash and cash equivalents	(150,545,935)	21,841,777
Interest income received	63,115	23,490
Net cash (used for) provided by investing activities	<u>(150,482,820)</u>	<u>21,865,267</u>
Net change in unrestricted cash and cash equivalents	4,272,311	2,949,813
Unrestricted cash and cash equivalents at beginning of year	5,504,949	2,555,136
Unrestricted cash and cash equivalents at end of year	\$ 9,777,260	\$ 5,504,949
Supplemental information on noncash activities:		
Noncash increase in property, plant and equipment	\$ 13,708,441	\$ 9,791,856
Capitalized interest	(13,708,441)	(9,791,856)
	<u>\$ - 0</u>	<u>\$ - 0</u>
Noncash federal expenditures	\$ 1,058,262	\$ 2,691,636
Noncash grants from U.S. Government	(1,058,262)	(2,691,636)
	<u>\$ - 0</u>	<u>\$ - 0</u>

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, 2016 and 2015

	2016	2015
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	\$ 37,906,965	\$ 29,162,726
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	15,348,101	14,543,396
Bad debts expense	1,034,310	980,243
Recovery of provision for inventory obsolescence	- 0	(2,046,666)
Non-cash pension costs	(72,711)	(3,551,525)
(Increase) decrease in assets:		
Accounts receivable	599,241	(2,964,001)
Materials and supplies inventory	(492,533)	1,982,164
Prepaid expenses	(5,252)	24,033
Increase (decrease) in liabilities:		
Accounts payable	(724,514)	(3,313,760)
Accrued payroll and employee benefits	541,290	(25,818)
Employee annual leave	31,967	85,140
Customer deposits	230,294	(62,607)
Other liabilities	921,858	578,003
DCRS sick leave liability	100,990	284,927
Net cash provided by operating activities	\$ 55,420,006	\$ 35,676,255

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 after liabilities are deducted and consists of the following categories:

Net investment in capital assets - include capital assets, restricted and unrestricted, net of accumulated depreciation, reduced by outstanding debt, net of debt service reserve.

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.

At September 30, 2016 and 2015, restricted net position consists of the following:

	2016	2015
System Development Fund	\$9,064,792	\$7,852,884
Revenue Fund	8,778,223	7,035,771
Bid Escrow Fund	845,734	648,433
Sewer Hook-up Revolving Fund	62,132	84,684
PUC surcharge	<u>166,763</u>	<u>276,889</u>
	<u>\$18,917,644</u>	<u>\$15,898,661</u>

All of GWA's restricted net position is expendable.

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.

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, deferred outflows of resources 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 2014 series refunding bonds, the differences between expected and actual experience with regard to economic

or demographic factors in the measurement of the total pension liability and pension contributions made subsequent to the measurement date 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, deferred inflows of resources 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 differences between projected and actual earnings on pension plan investments and changes in proportion and differences between GWA pension contributions and proportionate share of contributions qualify for reporting in this category.

Compensated Absences

Compensated absences are accrued and reported as a liability in the period earned. Annual leave expected to be paid out within the next fiscal year is accrued and is included in current liabilities. Employees are credited with vacation leave at rates of 104, 156 or 208 hours per fiscal year, depending upon their service time with GWA. Accumulation of such vacation credits is normally limited to 480 hours at fiscal year-end; however, management has exercised its authority in certain conditions to allow accumulation of up to 720 hours. All such vacation credit is convertible to pay upon termination of employment.

During the year ended September 30, 2003, Public Law 27-05 was implemented, reducing the amount of leave employees can earn in a fiscal year (either 104 or 156 hours) and the maximum accumulation

amount of annual leave to 320 hours. Any annual leave earned in excess of 320 hours, but not to exceed 100 hours as of February 28, 2003 shall be credited to the employees' sick leave. Public Law 27-106 does not allow lump sum compensation or retirement credit for annual leave in excess of three hundred twenty (320) hours.

Pensions

Pensions are required to be recognized and disclosed using the accrual basis of accounting. GWA recognizes a net pension liability for the pension plan in which it participates, which represents GWA's proportional share of excess total pension liability over the pension plan assets – actuarially calculated – of a single employer plan, measured as of the fiscal year-end. 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 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.

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.

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 \$26.61 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, 2016 and 2015 are \$2,700,451 and \$2,724,515, respectively, and are included as receivables in the accompanying financial statements.

Cash and Cash Equivalents

For purposes of the statements of net position and the statements 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.

For purposes of the statements of cash flows, cash and cash equivalents do not include restricted cash and cash equivalents.

Capitalization of Interest

GWA capitalizes interest on construction in progress based on the weighted average interest rate. During

the years ended September 30, 2016 and 2015, interest of \$13,708,441 and \$9,791,856, respectively, was capitalized.

Capitalized Labor Costs

GWA capitalizes related labor costs incurred on construction in progress. During the years ended September 30, 2016 and 2015, labor costs of \$2,980,358 and \$2,344,682, respectively, were capitalized.

Operating and Non-Operating Revenue and Expenses

Operating revenues and expenses generally result directly from the operation and maintenance of GWA. 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 not yet received approximated \$21,013,647 and \$4,106,732 at September 30, 2016 and 2015, 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.

New Accounting Standards

During the year ended September 30, 2016, GWA implemented the following pronouncements:

GASB Statement No. 72, Fair Value Measurement and Application, which addresses accounting and financial reporting issues related to fair value measurements and requires entities to expand their fair value disclosures by determining major categories of debt and equity securities within the fair value hierarchy on the basis of the nature and risk of the investment.

GASB Statement No. 76, The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments, which eliminates two of the four categories of authoritative GAAP that exist under the existing hierarchy prescribed by Statement No. 55. The two categories that will remain under the new standard are (1) GASB Statements and (2) GASB technical bulletins and implementation guides in addition to AICPA guidance that the GASB clears.

GASB Statement No. 79, Certain External Investment Pools and Pool Participants, addresses for certain external investment pools and their participants the accounting and financial reporting implications that result from changes in the regulatory provisions referenced by previous accounting and financial reporting standards. Those provisions were based on the Investment Company Act of 1940, Rule 2a7. Rule 2a7 contains the Securities and Exchange Commission's regulations that apply to money market funds and were significantly amended in 2014.

The implementation of these statements did not

have a material effect on the accompanying financial statements.

In June 2015, GASB issued Statement No. 73, Accounting and Financial Reporting for Pensions and Related Assets That Are Not Within the Scope of GASB Statement No. 68, and Amendments to Certain Provisions of GASB Statements No. 67 and No. 68, which aligns the reporting requirements for pensions and pension plans not covered in GASB Statements No. 67 and No. 68 with the reporting requirements in Statement No. 68. The provisions in Statement No. 73 are effective for fiscal years beginning after June 15, 2016. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

In June 2015, GASB issued Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, which replaces Statements No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, and addresses financial reporting requirements for governments whose employees are provided with postemployment benefits other than pensions (other postemployment benefits or OPEB). The provisions in Statement No. 74 are effective for fiscal years beginning after June 15, 2016. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

In June 2015, GASB issued 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 Postem-

ployment Benefits Other Than Pensions, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, and provides guidance on reporting by governments that provide OPEB to their employees and for governments that finance OPEB for employees of other governments. The provisions in Statement No. 75 are effective for fiscal years beginning after June 15, 2017. Management has yet to determine whether the implementation of this statement will have a material effect on the financial statements.

In August 2015, GASB issued Statement No. 77, Tax Abatement Disclosures, which requires governments that enter into tax abatement agreements to disclose certain information about the agreements. The provisions in Statement No. 77 are effective for fiscal years beginning after December 15, 2015. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In December 2015, GASB issued Statement No. 78, Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans, which addresses a practice issue regarding the scope and applicability of Statement No. 68, Accounting and Financial Reporting for Pensions. The provisions in Statement No. 78 are effective for fiscal years beginning after December 15, 2015. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In January 2016, GASB issued Statement No. 80, Blending Requirements for Certain Component Units - an amendment of GASB Statement No. 14, which improves financial reporting by clarifying the financial statement presentation requirements for certain component units. The provisions in Statement No. 80 are effective for fiscal years beginning

after June 15, 2016. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In March 2016, GASB issued Statement No. 81, Irrevocable Split-Interest Agreements, which improves accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. The provisions in Statement No. 81 are effective for fiscal years beginning after December 15, 2016. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

In March 2016, GASB issued Statement No. 82, Pension Issues - an amendment of GASB Statements No. 67, No. 68, and No. 73, which addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. The provisions in Statement No. 82 are effective for fiscal years beginning after June 15, 2016. Management does not believe that the implementation of this statement will have a material effect on the financial statements.

Reclassifications

Certain balances in the 2015 presentation have been reclassified to conform to the 2016 presentation.

(3) Cash and Cash Equivalents

The bond indenture agreements for the 2010, 2013, 2014, and 2016 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, or collateral-

ized 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, 2016 and 2015, the carrying amount of GWA's total cash and cash equivalents was \$382,901,023 and \$228,082,777, respectively, and the corresponding bank balances were \$385,219,466 and \$230,096,692, respectively. Of the bank balance amount, \$22,383,354 and \$16,217,638, respectively, is maintained in financial institutions subject to Federal Deposit Insurance Corporation (FDIC) insurance. The remaining amount of \$362,836,112 and \$213,879,054, 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, 2016 and 2015, bank deposits in the amount of \$620,067 and \$524,836, 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, 2016 and 2015, \$21,763,287 and \$15,692,802, respectively, of cash and cash equivalents are subject to custodial credit risk.

(3) Cash and Cash Equivalents, continued

Restricted cash and cash equivalents consists of cash received for specific capital projects and for bond indenture related accounts. The composition of current and noncurrent restricted cash and cash equivalents is as follows:

	2016	2015
Current restricted:		
Operation and maintenance	\$ 6,114	\$ 6,107
PUC surcharge	166,763	276,889
Bid Escrow Fund	845,734	648,433
Sewer Hook-up Revolving Fund	62,132	84,684
Revenue Fund	8,778,223	7,035,771
Capital Improvement Fund	10,730,729	4,919,915
Operations and Maintenance Fund	7,133,801	4,833,482
Debt Service Fund	46,983,343	32,751,938
Reserve Fund	4,124,348	2,956,181
Moratorium project	-	5,455
System Development Fund	<u>9,064,792</u>	<u>7,852,884</u>
	<u>87,845,979</u>	<u>61,371,738</u>
Noncurrent restricted:		
2010 Bond Indenture Funds:		
Construction Fund	11,725,749	17,726,953
2013 Bond Indenture Funds:		
Construction Fund	107,622,618	125,495,988
Capitalized Interest Fund	-	2,334,792
2014 Bond Indenture Funds:		
Operations, Maintenance, Renewal and Replacement Reserve Fund	17,423,213	14,753,392
Construction Fund	820,529	894,965
2016 Bond Indenture Funds:		
Construction Fund	138,748,131	-
Capitalized Interest Fund	<u>8,937,544</u>	<u>-</u>
	<u>285,277,784</u>	<u>161,206,090</u>
Total restricted cash and cash equivalents	<u>\$ 373,123,763</u>	<u>\$ 222,577,828</u>

(4) Receivables

Receivables at September 30, 2016 and 2015 are as follows:

	2016	2015
Customers:		
Private	\$ 22,040,481	\$ 22,136,853
Government	<u>3,161,512</u>	<u>4,411,987</u>
	25,201,993	26,548,840
Federal grants receivable	967,641	173,820
Guam Power Authority	1,081,164	344,766
Other	<u>761,009</u>	<u>749,763</u>
	<u>28,011,807</u>	<u>27,817,189</u>
Less allowance for doubtful accounts:		
Private	(10,555,280)	(9,520,932)
Government	<u>(747,300)</u>	<u>(747,300)</u>
	<u>(11,302,580)</u>	<u>(10,268,232)</u>
	<u>\$ 16,709,227</u>	<u>\$ 17,548,957</u>

(4) Receivables, Continued

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, 2016 are as follows:

	Estimated Useful Lives in Years	Beginning Balance October 1, 2015	Transfers and Additions	Transfers and Deletions	Ending Balance September 30, 2016
<u>Depreciable:</u>					
Utility Plant in Service					
– Water	10-50	\$ 294,780,104	\$ 12,185,819	\$ (703,355)	\$ 306,262,568
Utility Plant in Service					
– Wastewater	25-50	258,799,236	713,171	-	259,512,407
General Fixed Assets	5-10	<u>21,612,653</u>	<u>929,969</u>	<u>(67,835)</u>	<u>22,474,787</u>
		575,191,993	13,828,959	(771,190)	588,249,762
Accumulated Depreciation		<u>(268,037,482)</u>	<u>(15,348,101)</u>	<u>547,970</u>	<u>(282,837,613)</u>
		307,154,511	(1,519,142)	(223,220)	305,412,149
<u>Non-depreciable:</u>					
Land		64,288	190,000	-	254,288
Construction Work in Progress		<u>52,891,167</u>	<u>42,221,096</u>	<u>(13,234,702)</u>	<u>81,877,561</u>
		\$ <u>360,109,966</u>	\$ <u>40,891,954</u>	\$ <u>(13,457,922)</u>	\$ <u>387,543,998</u>

Capital asset activities for the year ended September 30, 2015 are as follows:

	Estimated Useful Lives in Years	Beginning Balance October 1, 2014	Transfers and Additions	Transfers and Deletions	Ending Balance September 30, 2015
<u>Depreciable:</u>					
Utility Plant in Service					
– Water	10-50	\$ 271,403,753	\$ 23,956,654	\$ (580,303)	\$ 294,780,104
Utility Plant in Service					
– Wastewater	25-50	245,042,975	14,032,751	(276,490)	258,799,236
General Fixed Assets	5-10	<u>18,935,114</u>	<u>3,131,292</u>	<u>(453,753)</u>	<u>21,612,653</u>
		535,381,842	41,120,697	(1,310,546)	575,191,993
Accumulated Depreciation		<u>(254,580,243)</u>	<u>(14,543,396)</u>	<u>1,086,157</u>	<u>(268,037,482)</u>
		280,801,599	26,577,301	(224,389)	307,154,511
<u>Non-depreciable:</u>					
Land		64,288	-	-	64,288
Construction Work in Progress		<u>55,173,953</u>	<u>38,835,533</u>	<u>(41,118,319)</u>	<u>52,891,167</u>
		\$ <u>336,039,840</u>	\$ <u>65,412,834</u>	\$ <u>(41,342,708)</u>	\$ <u>360,109,966</u>

(6) Long-Term Debt

Long-term debt at September 30, 2016 and 2015 is as follows:

	<u>2016</u>	<u>2015</u>
<u>Revenue Bonds:</u>		
2010 Series revenue bonds, initial face value of \$118,825,000, 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.	\$ 116,180,000	\$ 117,770,000
2013 Series revenue bonds, initial face value of \$172,630,000, 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
2014 Series refunding bonds, initial face value of \$85,600,000, 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.	79,380,000	82,700,000
2016 Series revenue bonds, initial face value of \$143,310,000, 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.	<u>143,310,000</u>	-
Total revenue bonds payable	511,500,000	373,100,000
Less current maturities	<u>(5,040,000)</u>	<u>(4,910,000)</u>
	506,460,000	368,190,000
Bond premium – 2016 series bonds	17,870,470	-
Bond premium – 2014 series bonds, net	5,071,307	5,337,921
Bond discount – 2013 series bonds	(1,389,850)	(1,440,950)
Bond discount – 2010 series bonds	<u>(1,948,205)</u>	<u>(2,028,886)</u>
	<u>\$ 526,063,722</u>	<u>\$ 370,058,085</u>

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

Notes to Financial Statements
September 30, 2016 and 2015

(6) Long-Term Debt, Continued

Revenue Bonds, Continued:

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

<u>Year ending September 30,</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$ 5,040,000	\$ 26,687,801	\$ 31,727,801
2018	5,200,000	26,532,297	31,732,297
2019	5,420,000	26,348,302	31,768,302
2020	8,770,000	26,114,825	34,884,825
2021	9,215,000	25,669,588	34,884,588
2022 through 2026	53,680,000	120,750,275	174,430,275
2027 through 2031	68,930,000	105,502,675	174,432,675
2032 through 2036	88,840,000	85,590,188	174,430,188
2037 through 2041	115,725,000	58,707,875	174,432,875
2042 through 2046	<u>150,680,000</u>	<u>22,918,325</u>	<u>173,598,325</u>
	<u>\$ 511,500,000</u>	<u>\$ 524,822,151</u>	<u>\$ 1,036,322,151</u>

Note Payable:

	<u>2016</u>	<u>2015</u>
Note payable to a bank in the original amount of \$25,000,000, 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.	\$ 11,452,191	\$ 14,197,776
Less current maturities	<u>(2,873,988)</u>	<u>(2,737,804)</u>
	<u>\$ 8,578,203</u>	<u>\$ 11,459,972</u>

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

<u>Year ending September 30,</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$ 2,873,988	\$ 546,012	\$ 3,420,000
2018	3,042,383	377,617	3,420,000
2019	3,206,007	213,993	3,420,000
2020	<u>2,329,813</u>	<u>48,013</u>	<u>2,377,826</u>
	<u>\$ 11,452,191</u>	<u>\$ 1,185,635</u>	<u>\$ 12,637,826</u>

(6) Long-Term Debt, Continued

2010 Series Revenue Bonds

On November 1, 2010, GWA entered into a supplemental indenture agreement for the issuance of \$118,825,000 Water and Wastewater System Revenue Bonds, Series 2010, to finance various water and wastewater capital improvement projects. The 2010 bonds are limited obligations of GWA payable solely from and secured by a pledge of revenues as defined in the indenture. The bonds are subject to mandatory, optional and special redemption prior to maturity.

Total bond proceeds were \$116,404,591, net of a bond discount of \$2,420,409 and GWA incurred 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, to paying capitalized interest, to fund a deposit to the Bond Reserve Fund, and paying related issuance costs.

All gross revenues, except System Development Charge (SDC) revenues, of GWA have been pledged to repay the 2010 series bonds principal and interest. The debt service for the 2010 series bonds were \$8,065,600 and \$7,571,400 for each of the years ended September 30, 2016 and 2015 or approximately 8%, respectively, of pledged gross revenues.

2013 Series Revenue Bonds

On December 12, 2013, the Guam Waterworks Authority issued \$172,630,000 Water and Wastewater System Revenue Bonds, Series 2013, to fund 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 will be used to pay for capital projects.

Total bond proceeds were \$171,097,017, net of a bond discount of \$1,492,049 and GWA incurred 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.

The 2013 Bonds are limited obligations of GWA and are payable solely from, and secured solely by a lien on and pledge of, revenues to secure the payment of principal and interest on the Bonds. Revenues consist primarily of all gross income and revenue received by GWA from the ownership or operation of the System, subject to the provisions of the Indenture and exclusive of certain surcharges.

The debt service for the 2013 series bonds were \$9,331,688 and \$9,331,688 for the years ended September 30, 2016 and 2015 or approximately 9% and 10%, respectively, of pledged gross revenues.

2014 Series Refunding Bonds

On August 7, 2014, GWA issued the 2014 Bonds 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 trans-

ferred 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 almost \$13,873,732 over the next 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 Bonds are limited obligations of GWA and are payable solely from, and secured solely by a lien on and pledge of, revenues to secure the payment of principal and interest on the Bonds. Revenues consist primarily of all gross income and revenue received by GWA from the ownership or operation of the System, subject to the provisions of the Indenture and exclusive of certain surcharges.

Total bond proceeds were \$92,533,037, including net bond premium of \$5,619,665 and funds from deposit in 2005 Bond Fund and Bond Reserve Fund of \$1,284,068. GWA incurred closing costs of \$1,536,177. The net bond premium has been deferred and is being amortized on a straight line basis over the average remaining life of the 2014 bonds.

The debt service for the 2014 series bonds commenced on January 1, 2015. The debt service for the 2014 series bonds was \$7,165,014 and

\$6,399,425 for the years ended September 30, 2016 and 2015 or approximately 7% and 7%, respectively, of pledged gross revenues.

2016 Series Revenue Bonds

On February 9, 2016, the Guam Waterworks Authority issued \$143,310,000 Water and Wastewater System Revenue Bonds, Series 2016, to fund 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 will be used to pay for capital projects.

Total bond proceeds were \$160,364,808, including net bond premium of \$17,054,808. GWA incurred 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.

The 2016 Bonds are limited obligations of GWA and are payable solely from, and secured solely by a lien on and pledge of, revenues to secure the payment of principal and interest on the Bonds. Revenues consist primarily of all gross income and revenue received by GWA from the ownership or operation of the System, subject to the provisions of the Indenture and exclusive of certain surcharges.

The debt service for the 2016 series bonds was \$7,165,500 for the year ended September 30, 2016 or approximately 7% of pledged gross revenues.

Bank Loan

On June 15, 2010, GWA entered into a \$25 million bank loan for the purpose of funding a portion of the

cost of a moratorium project. Pursuant to the loan, GWA pledged all revenues but subject first, to a consent decree, and second, to the prior pledge and lien and other provisions of the bond indenture agreements for the 2005 series revenue bonds refunded through 2014 series revenue bonds in 2014.

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, 2016 and 2015, bonds outstanding of \$81,065,000 and \$83,350,000, respectively, are considered defeased.

(7) Change in Long-Term Liabilities

The following summarizes changes in GWA's long-term liabilities for the years ended September 30, 2016 and 2015:

	Outstanding October 1, 2015	Increases	Decreases	Outstanding September 30, 2016	Current
Long-term debt:					
2010 series A bonds	\$ 117,770,000	\$ -	\$ (1,590,000)	\$ 116,180,000	\$ 1,655,000
2013 series A bonds	172,630,000	-	-	172,630,000	-
2014 series A and B bonds	82,700,000	-	(3,320,000)	79,380,000	3,385,000
2016 series A bonds	-	143,310,000	-	143,310,000	-
Notes payable	14,197,776	-	(2,745,585)	11,452,191	2,873,988
Deferred amount:					
Unamortized discount on 2010 bonds issued	(2,028,886)	-	80,681	(1,948,205)	-
Unamortized discount on 2013 bonds issued	(1,440,950)	-	51,100	(1,389,850)	-
Unamortized premium on 2014 bonds issued	5,349,921	-	(269,744)	5,080,177	-
Unamortized discount on 2014 bonds issued	(12,000)	-	3,130	(8,870)	-
Unamortized premium on 2016 bonds issued	-	17,870,470	-	17,870,470	-
	389,165,861	161,180,470	(7,790,418)	542,555,913	7,913,988
Other:					
Employee annual leave	1,403,962	31,967	-	1,435,929	548,845
DCRS sick leave liability	1,540,507	100,990	-	1,641,497	-
Net pension liability	34,047,740	4,148,198	-	38,195,938	-
	<u>\$ 426,158,070</u>	<u>\$ 165,461,625</u>	<u>\$ (7,790,418)</u>	<u>\$ 583,829,277</u>	<u>\$ 8,462,833</u>

(7) Change in Long-Term Liabilities, Continued

	Outstanding October 1, 2014	Increases	Decreases	Outstanding September 30, 2015	Current
Long-term debt:					
2010 series A bonds	\$ 118,825,000	\$ -	\$ (1,055,000)	\$ 117,770,000	\$ 1,590,000
2013 series A bonds	172,630,000	-	-	172,630,000	-
2014 series A and B bonds	85,600,000	-	(2,900,000)	82,700,000	3,320,000
Notes payable	17,511,563	-	(3,313,787)	14,197,776	2,737,804
Deferred amount:					
Unamortized discount on 2010 bonds issued	(2,109,566)	-	80,680	(2,028,886)	-
Unamortized discount on 2013 bonds issued	(1,492,049)	-	51,099	(1,440,950)	-
Unamortized premium on 2014 bonds issued	5,619,665	-	(269,744)	5,349,921	-
Unamortized discount on 2014 bonds issued	<u>(15,131)</u>	<u>-</u>	<u>3,131</u>	<u>(12,000)</u>	<u>-</u>
	396,569,482	-	(7,403,621)	389,165,861	7,647,804
Other:					
Employee annual leave	1,318,822	89,746	(4,606)	1,403,962	511,267
DCRS sick leave liability	1,255,580	284,927	-	1,540,507	-
Advances for construction	169,299	-	(169,299)	-	-
Net pension liability	<u>38,536,384</u>	<u>615,475</u>	<u>(5,104,119)</u>	<u>34,047,740</u>	<u>-</u>
	<u>\$ 437,849,567</u>	<u>\$ 990,148</u>	<u>\$ (12,681,645)</u>	<u>\$ 426,158,070</u>	<u>\$ 8,159,071</u>

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.

Plan Membership: As of September 30, 2016, the date of the most recent valuation, plan membership consisted of the following:

Retirees and beneficiaries currently receiving benefits	7,197
Terminated employees entitled to benefits but not yet receiving	4,701
Current members	<u>2,460</u>
	<u>14,358</u>

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. Cost-of-living adjustments and other supplemental annuity benefits are provided to members and beneficiaries at the discretion of the Guam Legislature.

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 20 to 24 years of service regardless of age with a reduced benefit if the member is under age 60; or comple-

(8) Employees' Retirement Plan

Defined Benefit Plan

A. General Information About the Pension Plan:

Plan Description: GWA participates in the GovGuam Defined Benefit (DB) Plan, a single-employer defined benefit pension plan administered by the GovGuam Retirement Fund (GGRF). 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). Hence, the DB Plan became a closed group.

tion 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 25 to 29 years of service regardless of age with a reduced benefit if the member is under age 60; or 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 25 to 29 years of service regardless of age with a reduced benefit if the member is under age 65; or 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.

Contributions and Funding Policy: Contribution requirements of participating employers and active members are determined in accordance with Guam law. Employer contributions are actuarially determined under the One-Year Lag Methodolo-

gy. 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, 2014 actuarial valuation was used for determining the year ended September 30, 2016 statutory contributions. Member contributions are required at 9.5% of base pay.

(8) Employees' Retirement Plan, Continued

Defined Benefit Plan, Continued

A. General Information About the Pension Plan, Continued:

As a result of actuarial valuations performed as of September 30, 2014, 2013, and 2012, contribution rates required to fully fund the Retirement Fund liability, as required by Guam law, for the years ended September 30, 2016, 2015 and 2014, respectively, have been determined as follows:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Normal costs (% of DB Plan payroll)	15.86%	15.92%	16.61%
Employee contributions (DB Plan employees)	<u>9.54%</u>	<u>9.55%</u>	<u>9.50%</u>
Employer portion of normal costs (% of DB Plan payroll)	<u>6.32%</u>	<u>6.37%</u>	<u>7.11%</u>
Employer portion of normal costs (% of total payroll)	1.94%	2.05%	2.39%
Unfunded liability cost (% of total payroll)	<u>22.42%</u>	<u>24.09%</u>	<u>24.01%</u>
Government contribution as a % of total payroll	<u>24.36%</u>	<u>26.14%</u>	<u>26.40%</u>
Statutory contribution rates as a % of DB Plan payroll:			
Employer	<u>28.16%</u>	<u>29.85%</u>	<u>30.03%</u>
Employee	<u>9.54%</u>	<u>9.55%</u>	<u>9.50%</u>

GWA's contributions to the DB Plan for the years ended September 30, 2016, 2015 and 2014 were \$846,186, \$1,096,069, and \$1,191,600, respectively, which were equal to the required contributions for the respective years then ended.

Actuarial Assumptions: Actuarially determined contribution rates 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, 2015
Actuarial Cost Method:	Entry age normal
Amortization Method:	Level percentage of payroll, closed
Remaining Amortization Period:	15.58 years
Asset Valuation Method:	3-year smoothed market value
Inflation:	2.75%
Total payroll growth:	3.00% per year
Salary Increases:	4.50% to 7.50%
Expected Rate of Return:	7.00%
Discount Rate:	7.00%

(8) Employees' Retirement Plan, Continued

(Defined Benefit Plan, Continued)

A. General Information About the Pension Plan, Continued:

Retirement age: 40% are assumed to retire upon first eligibility for unreduced retirement. Thereafter, the probabilities of retirement are 15% until age 65, 20% from 65-69, and 100% at age 70.

Mortality: RP-2000 healthy mortality table set forward by 4 years for males and 1 year for females. Mortality for disabled lives is the RP 2000 disability mortality table with no set forwards.

Other information: Actuarial assumptions are based upon periodic experience studies. The last experience study reviewed experience from 2007-2011, and was first reflected in the actuarial valuation as of September 30, 2012.

Discount Rate: The total pension liability is calculated using a discount rate of 7.0% that is a blend of the expected investment rate of return and a high quality bond index rate. There was no change in the discount rate since the previous year. The expected investment rate of return applies for as long as the plan assets (including future contributions) are projected to be sufficient to make the projected benefit payments. If plan assets are projected to be depleted at some point in the future, the rate of return of a high quality bond index is used for the period after the depletion date.

Discount Rate Sensitivity Analysis: The following schedule shows the impact of the Net Pension Liability if the discount rate used was 1% less than and 1% greater than the discount rate that was used (7%) in measuring the 2015 Net Pension Liability.

	1% Decrease in Discount Rate <u>6.0%</u>	Current Discount Rate <u>7.0%</u>	1% Increase in Discount Rate <u>8.0%</u>
Net Pension Liability	\$ 46,410,540	\$ 38,195,938	\$ 31,129,778

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

Pension Liability: At September 30, 2016 and 2015, GWA reported a liability of \$38,195,938 and \$34,047,740, respectively, for its proportionate share of the net pension liability. GWA's proportion of the net pension liability was based on projection of GWA's long-term share of contributions to the pension plan relative to the projected contributions of GovGuam and GovGuam's component units, actuarially determined. At September 30, 2016 and 2015, GWA's proportion was 2.7877% and 2.7319%, respectively.

Pension Expense: For the years ended September 30, 2016 and 2015, GWA recognized pension expense of \$3,458,827 and \$362,873, respectively.

(8) Employees' Retirement Plan, Continued

(Defined Benefit Plan, 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, 2016 and 2015, GWA reported total deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	2016		2015	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 479,024	\$ -	\$ 252,600	\$ -
Net difference between projected and actual earnings on pension plan investments	431,628	\$ -	-	\$ 2,591,420
Contributions subsequent to the measurement date	3,545,111	-	3,763,091	-
Changes in proportion and difference between GWA contributions and proportionate share of contributions	212,247	-	-	977,170
	<u>\$ 4,668,010</u>	<u>\$ -</u>	<u>\$ 4,015,691</u>	<u>\$ 3,568,590</u>

Deferred outflows resulting from contributions subsequent to measurement date will be recognized as a 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, 2016 will be recognized in pension expense as follows:

Year Ended September 30

2017	\$ 464,254
2018	\$ (277,019)
2019	\$ 340,878
2020	\$ 594,786

Defined Contribution Plan

Contributions into the Defined Contribution Retirement System (DCRS) plan by members are based on an automatic deduction of 5% of the member's regular base pay. The contribution is periodically deposited into an individual investment account within the DCRS. Employees are afforded the opportunity

to select from different investment accounts available under the DCRS.

Statutory employer contributions into the DCRS plan for the years ended September 30, 2016 and 2015 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 member's individual investment account. The remaining amount is contributed towards the unfunded liability of the defined benefit plan.

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.

GWA's contributions to the DCRS Plan for the years ended September 30, 2016, 2015 and 2014 were \$3,271,914, \$3,199,900 and \$2,994,520, respectively, which were equal to the required contributions for the respective years then ended. Of these amounts, \$2,698,925, \$2,667,022 and \$2,495,968 were contributed toward the unfunded liability of the DB Plan for the years ended September 30, 2016, 2015 and 2014, respectively.

Public Law 26-86 allows members of the DCRS to receive a lump sum payment of one-half of their accumulated sick leave upon retirement. GWA has accrued an estimated liability of \$1,641,497 and \$1,540,507 at September 30, 2016 and 2015, respectively, for potential future sick leave payments as a result of this law. However, this amount is an estimate and the actual payout may be materially different than estimated.

Other Post Employment Benefits

GovGuam, through its substantive commitment to provide other post-employment benefits (OPEB), maintains a single-employer defined benefit plan to provide certain postretirement healthcare benefits to retirees who are members of the GovGuam Retirement Fund. Under the Plan, known as the GovGuam Group Health Insurance Program, GovGuam provides medical, dental, and life insurance coverage. The retiree medical and dental plans are fully-insured products provided through insurance companies. GovGuam shares in the cost of these plans, with GovGuam's contribution amount set each year at renewal. Current statutes prohibit active and retired employees from contributing different amounts for the same coverage. As such, GovGuam contributes substantially more to the cost of retiree healthcare than to active healthcare. For the life insurance plan, GovGuam provides retirees with \$10,000 of life insurance coverage through an insurance company. Retirees do not share in the cost of this coverage. Because the 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.

For the years ended September 30, 2016, 2015 and 2014, GWA reimbursed GovGuam for certain supplemental benefits for retirees, including contributions for the abovementioned Plan, as follows:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Supplemental benefits	\$ 406,470	\$ 662,852	\$ 300,000
Contribution to GovGuam			
(COLA payments) Medi-	584,000	584,000	523,800
cal and Dental	<u>2,357,792</u>	<u>2,244,249</u>	<u>1,695,051</u>
	\$ <u>3,348,262</u>	\$ <u>3,491,101</u>	\$ <u>2,518,851</u>

(9) 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, 2016 and 2015, the property has not been recognized in the financial statements pending completion of formal transfer proceedings.

(10) 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, 2016 and 2015 are \$6,374,035 and \$5,098,872, respectively.

(11) Commitments and Contingencies

Merit System

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 performances grade. The bonus is calculated at 3.5% of the employee's base salary beginning 1991. GWA did not calculate or pay any bonuses pursuant to the law from 1991 through 2012. As of September 30, 2016, GWA has not assessed the impact of the requirements of the law for fiscal years 1991 to 2015. Therefore, no liability which may ultimately arise from this matter has been recorded in the accompanying financial 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 \$103,264,319 at September 30, 2016, of which \$21,013,647 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 2010 and 2013 Series Bond funded projects, military buildup, and other related tasks. The PMO contract is for a five-year period with an option to extend for two two-year periods. Contract commitments for the PMO services approximate \$4,710,499 as of September 30, 2016.

Operating Lease

In February 2015, GWA moved to a new 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 Gloria B. Nelson 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.

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 worth 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, 2016, the financial impact of the order has not been fully known and has been estimated to cost approximately \$450 million to \$500 million, including financing costs.

Primary Treatment Permits

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 will determine implementation schedule for secondary treatment.

(12) Contributions Received

Contributions received by GWA during the years ended September 30, 2016 and 2015, are as follows:

	<u>2016</u>	<u>2015</u>
Grants from U.S. Government Received from the U.S. EPA.	\$ 5,211,045	\$ 3,506,633
Passed through from the Government of Guam	277,817	80,004
	<u>\$ 5,488,862</u>	<u>\$ 3,586,637</u>

(13) Supplemental/COLA Annuities

As required by Public Law 26-49, as amended by Public Law 27-106, GWA must pay to the Government of Guam Retirement Fund certain supplemental benefits for retirees. During the years ended September 30, 2016 and 2015, GWA levied surcharges of 3.25% and 3.7%, respectively, amounting to \$2,898,325 and \$2,798,030, 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.

(14) System Development Charge (SDC)

On January 29, 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, 2016 and 2015, SDC revenues were \$1,428,332 and \$1,181,254, respectively.

(15) 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, 2016 and

2015 were \$11,225,884 and \$14,026,448, respectively, and GWA was also charged \$981,961 and \$917,250, respectively, for administrative services provided by GPA. Outstanding payables for power purchases, administrative expenses and cost reimbursements owed by GWA to GPA were \$1,164,722 and \$933,386 as of September 30, 2016 and 2015, respectively.

For the years ended September 30, 2016 and 2015, GWA billed GPA a total of \$1,166,911 and \$1,426,618, respectively, for water and sewer charges on the facilities transferred by the Navy to GPA. The amount due from GPA as of September 30, 2016 and 2015 was \$1,086,164 and \$344,766, 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, 2016 and 2015 were \$1,565,080 and \$1,343,767, respectively. Outstanding payables for waste disposal fees owed by GWA to GSWA were \$134,837 and \$135,098 as of September 2016 and 2015, respectively, and were included in trade accounts payable in the accompanying statements of net position.

(16) Subsequent Events

In October 2016, Bill 2-33 was passed, enacting two new government retirement plans; the DB Lite plan and the Guam Retirement Security Plan. Beginning 2018, the Security Plan and Defined Contribution plan are to become the primary systems for all new hires.

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

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

	2016	2015	2014
Total net pension liability	\$ 1,370,173,934	\$ 1,246,306,754	\$ 1,303,304,636
GWA's proportionate share of the net pension liability	\$ 38,195,938	\$ 34,047,740	\$ 38,536,384
GWA's proportion of the net pension liability	2.79%	2.73%	2.96%
GWA's covered-employee payroll**	\$ 14,388,631	\$ 13,930,486	\$ 13,733,821
GWA's proportionate share of the net pension liability as percentage of its covered employee payroll	265.46%	244.41%	280.59%
Plan fiduciary net position as a percentage of the total pension liability	53.50%	56.60%	53.45%

* 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)

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

	2016	2015	2014
Actuarially determined contribution	\$ 3,759,121	\$ 3,684,774	\$ 3,658,076
Contribution in relation to the actuarially determined contribution	<u>3,545,111</u>	<u>3,687,568</u>	<u>3,649,267</u>
Contribution deficiency (excess)	<u>\$ 214,010</u>	<u>\$ (2,794)</u>	<u>\$ 8,809</u>
GWA's covered-employee payroll **	<u>\$ 14,388,631</u>	<u>\$ 13,930,486</u>	<u>\$ 13,733,821</u>
Contribution as a percentage of covered-employee payroll	24.64%	26.47%	26.57%

* 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)

Schedule of Certain Operating and Maintenance Expenses
Years Ended September 30, 2016 and 2015

	<u>2016</u>	<u>2015</u>
Salaries, wages and benefits:		
Regular, differential and hazardous pay	\$ 12,829,124	\$ 14,803,408
Pension costs and other benefits	4,771,075	362,883
Overtime pay	<u>886,208</u>	<u>1,001,876</u>
Total salaries, wages and benefits	\$ <u>18,486,407</u>	\$ <u>16,168,167</u>
Administrative and general:		
Chemicals	\$ 2,239,147	\$ 2,418,497
Materials and supplies	1,244,535	1,367,765
Insurance	1,213,327	1,236,685
Transportation	574,510	462,372
Public Utility Commission	325,252	432,436
Advertising	190,889	89,572
Training	149,481	147,240
Liability claims	127,412	69,765
Communications	123,178	198,103
Miscellaneous	<u>821,152</u>	<u>80,882</u>
Total administrative and general	\$ <u>7,008,883</u>	\$ <u>6,503,317</u>
Contractual:		
Labor, materials and others	\$ 1,855,070	\$ 1,617,961
Accounting	1,037,609	424,662
Equipment rental	697,942	228,475
Property rental	399,343	40,965
Testing	122,810	481,067
Legal	<u>4,348</u>	<u>137</u>
Total contractual	\$ <u>4,117,122</u>	\$ <u>2,793,267</u>
Other expense:		
Interest expense	\$ 24,641,647	\$ 20,865,205
Retiree healthcare costs and other benefits	<u>3,348,262</u>	<u>3,491,101</u>
	\$ <u>27,989,909</u>	\$ <u>24,356,306</u>

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, 2016

Project Title	Type	Beginning Balance FY2015	Additions and Transfers	Closed out during FY2016	Ending Balance FY2016
Agat/Santa Rita STP Replacement	Wastewater	\$ 4,984,160	\$ 9,811,785	\$ -	\$ 14,795,945
Baza Gardens Treatment Plant	Wastewater	712,507	2,618,668	-	3,331,175
Central Guam Reservoirs	Water	606,786	19,545	(19,545)	606,786
Chaot and Agana Heights Reservoirs	Water	8,028,624	1,761,750	(5,685,710)	4,104,664
General Plant Improvements	Water/Wastewater	762,530	955,570	(358,887)	1,359,213
Ground Water Chlorination	Water	19,949	4,411	-	24,360
Hagatna Wastewater Treatment Plant	Wastewater	234,740	-	-	234,740
I&I SSES Southern	Wastewater	2,059	1,096,381	-	1,098,440
I&I SSES Northern	Wastewater	461,347	374,126	-	835,473
I&I SSES Central	Wastewater	1,668,026	750,851	-	2,418,877
Island-Wide Real Property	Water	-	-	-	-
Survey and Mapping	Water	734,174	224,714	-	958,888
Leak Detection/Line Replacement Program	Water	326,103	3,945,385	(2,493,208)	1,778,280
Leak Repair Program	Water	22,815	-	-	22,815
Lift Station Upgrades	Wastewater	58,665	417,679	(341,320)	135,024
Mechanical/Electrical Equipment	Water	324,532	2,121,949	(448,309)	1,998,172
Meter Replacement Program	Water	105,498	123,382	(227,797)	1,083
Northern District Wastewater					
Treatment Interim Primary					
Treatment Improvements Project	Wastewater	1,626,908	-	-	1,626,908
Ordot/Chalan Pago 2B	Wastewater	622,341	-	-	622,341
Program Management for CWIP Projects	Water/Wastewater	7,455,122	4,770,015	(100,040)	12,125,097
Rehabilitation or Replacement of Sewerlines along Route 1 from Asan "War in the Pacific"					
National Park to Agana Main Pump Station	Wastewater	978	1,036,817	-	1,037,795
Rt 2 Agat Water in the Pacific Nat'l Park	Wastewater	978	119,324	-	120,302
Rt 4 Relief Sewer Line Rehab and Replacement	Wastewater	978	89,498	-	90,476
SCADA Project	Water	1,565,785	672,951	-	2,238,736
Sinajana Transmission Line	Water	79,564	-	(79,564)	(0)
Southern Sewer Basin SSES	Wastewater	992,297	-	-	992,297
SSES for Central Sewer System	Wastewater	943,596	-	-	943,596
Talofofo and Chalan Pago Wastewater Pump Stations	Wastewater	-	34,152	-	34,152
Tumon Hot Spots Sewer Line Rehabilitation	Wastewater	-	55,513	-	55,513
Uqum Treatment Plant Rehabilitation	Water	264,128	143,175	(252,192)	155,111
Wastewater System Upgrades	Wastewater	222,355	-	-	222,355
Wastewater Collection System Repl/Rehab	Wastewater	113,001	230,265	(202,715)	140,551
Water Reservoir Condition					
Assessment and Rehabilitation	Water	2,455,718	1,206,454	-	3,662,172
Water System Reservoirs Improvements	Water	4,371,182	3,596,301	(1,696,246)	6,271,237
Well Site Rehabilitation and					
New Well Site Development	Water	1,931,816	953,481	-	2,885,297
All Others	Water/Wastewater	11,191,905	5,086,954	(1,329,169)	14,949,690
		\$ 52,891,167	\$ 42,221,096	\$ (13,234,702)	\$ 81,877,561

See Accompanying Independent Auditors' Report.

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

System Development Charge Fund
Schedule of Net Position, Revenue, Expenses and Changes in Net Position
September 30, 2016 and 2015

ASSETS

	<u>2016</u>	<u>2015</u>
Current assets:		
Restricted cash	\$ 9,064,792	\$ 7,852,884
Receivables	<u>186,025</u>	<u>120,348</u>
	\$ <u>9,250,817</u>	\$ <u>7,973,232</u>

LIABILITIES AND NET POSITION

Current liabilities:		
Due to GWA	\$ 61,270	\$ 173,879
Net position:		
Restricted	<u>9,189,547</u>	<u>7,799,353</u>
	\$ <u>9,250,817</u>	\$ <u>7,973,232</u>

REVENUES, EXPENSES AND CHANGES IN NET POSITION

Revenues:		
System development charge	\$ 1,428,332	\$ 1,181,254
Other revenues	<u>22,746</u>	<u>18,730</u>
	1,451,078	1,199,984
Expenses:		
Miscellaneous	<u>60,884</u>	<u>- 0</u>
Change in net position	1,390,194	1,199,984
Net position at beginning of year	<u>7,799,353</u>	<u>6,599,369</u>
Net position at end of year	\$ <u>9,189,547</u>	\$ <u>7,799,353</u>

See Accompanying Independent Auditors' Report.

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

Schedule of Operating Revenues
Years Ended September 30, 2016 and 2015

	2016	2015
Water	\$ 64,339,714	\$ 56,746,066
Wastewater	37,228,780	32,679,297
Surcharges:		
Legislative	2,898,325	2,798,030
System development charge	1,428,332	1,181,254
Other	519,898	706,657
Bad debts expense	(1,034,310)	(980,243)
Total operating revenues	\$ <u>105,380,739</u>	\$ <u>93,131,061</u>

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, 2016 and 2015

Department	2016					Total
	Full-Time Employees	Personnel Services	Contractual Services	Materials and Supplies		
Administration	52 \$	4,039,134 \$	985,651 \$	88,263 \$		5,113,048
Accounting	27	1,611,822	952,906	17,877		2,582,605
Engineering	29	580,900	48,056	7,627		636,583
Collection and Distribution	66	2,942,584	765,228	698,445		4,406,257
Utility Services	54	2,924,244	55,232	26,087		3,005,563
Production and Treatment	105	<u>6,387,723</u>	<u>1,310,049</u>	<u>406,236</u>		<u>8,104,008</u>
Total	333 \$	<u>18,486,407</u> \$	<u>4,117,122</u> \$	<u>1,244,535</u> \$		<u>23,848,064</u>

Department	2015					Total
	Full-Time Employees	Personnel Services	Contractual Services	Materials and Supplies		
Administration	45 \$	2,520,138 \$	1,324,578 \$	91,592 \$		3,936,308
Accounting	25	1,338,557	326,775	281,256		1,946,588
Engineering	28	495,411	804	3,999		500,214
Collection and Distribution	47	3,911,301	537,032	556,001		5,004,334
Utility Services	57	1,566,826	2,044	22,937		1,591,807
Production and Treatment	107	<u>6,335,934</u>	<u>602,034</u>	<u>411,980</u>		<u>7,349,947</u>
Total	309 \$	<u>16,168,167</u> \$	<u>2,793,267</u> \$	<u>1,367,765</u> \$		<u>20,329,199</u>

See Accompanying Independent Auditors' Report.



GUAM **WATERWORKS** AUTHORITY



OPERATIONS

WATER PRODUCTION & TREATMENT



Ron Topasna
*Operations & Maintenance
Manager - Water Production &
Treatment*

In 2016, the Water Production & Treatment Division:

- Activated the Navy's Tumon Maui Well under full GWA operation as of June 10, 2016. Under a Memorandum of Understanding with the Department of Defense, GWA was given authorization to operate and maintain the Tumon Maui Well facility which produces more than one million gallons daily (or 800 gallons per minute) of water into the public water system. Since the activation of the Tumon Maui Well, GWA customers have been better served with improved line pressures, but more importantly, the activation of the well has provided a redundant water supply source, allowing GWA to secure certain production wells for service and maintenance without service interruption to our customers.
- Assisted with award of a contract for production well refurbishment, the first five in a series of wells to be refurbished. These wells (M-9, D-3, D-17, D-18 and D-22) will be completed by year 2018 and will provide additional water supply to their prospective zones while improving water pressures and service reliability.
- Obtained and trained additional manpower with six new trades helpers in the Production and Treatment Division. These entry-level positions allowed production and treatment to spread out seasoned operators and paired them with new employees which will cover more workload in the field.

WATER DISTRIBUTION



Vincent “Vince” Pangelinan
*Operations & Maintenance
Manager - Water Distribution*

In 2016, the Water Distribution Division:

- Activated the newly constructed Chaot and Agana Heights 0.5 million-gallon (MG) storage tanks to include a new booster pump system to address high-demand hours.
- Completed inspection and repairs for the Mangilao 1.0MG storage tank and placed back into service, which will provide additional capacity for the service area.
- Completed energy-efficient projects for the Windward Hills, Malojloj Line and Pago Bay booster pump stations.
- Worked with the GWA Asset Management Team and with the implementation of the new computerized maintenance management system (CMMS) for all maintenance activities.
- Implemented an islandwide fire hydrant replacement and maintenance program, working with the Guam Fire Department and other stakeholders.
- Installed a second pump for the Adawag Booster Pump Station, resulting in increased redundancy.
- Continued to address customer needs through the 24-hour Water System Control Center by identifying problem pressure areas and power outages affecting wells and tanks, as well as monitoring of leaks.

WASTEWATER COLLECTIONS



Anthony "Tony" Chargualaf
Operations & Maintenance Manager
- Wastewater Collections

In 2016, the Wastewater Collections Division:

- Completed the five-year court order to clean and inspect 275 miles of sewer collector lines (approximately 55 miles per year) via closed-circuit television (CCTV).
- Replaced 330 feet of collapsed 16-inch sewer line.
- Installed ventilation blowers at pump stations.
- Improved several southern pump stations, including pipe and valve replacements, pump guides and pumps.
- Installed power monitoring devices, resulting in electrical improvements.
- Purchased a new combination high-velocity unit for sewer line cleaning.
- Purchased four new cameras and transporters for CCTV inspections.
- Purchased milling cutters to cut through heavy grease deposits inside sewer lines.

WASTEWATER TREATMENT



David Fletcher
Operations & Maintenance Manager
- Wastewater Treatment

In 2016, the Wastewater Treatment Division:

- Continued successful operations and upkeep of all treatment facilities through process control measures, as well as preventive maintenance activities of treatment assets and equipment.
- Endeavored to improve aesthetics at all wastewater treatment (WWT) facilities.
- Focused on achieving compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements.
- Welcomed five new trades helpers to the WWT operations staff. These new additions satisfied the manpower, start-up, maintenance and operation requirements of the new Agat-Santa Rita Wastewater Treatment Plant (WWTP).
- Stationed Jacinto Ililau and Eric Aguon to the Northern WWTP after their successful passing of Level I WWT certification exams. Both are currently in the process of being promoted to Sewer Plant Operator I positions.
- Promoted Benbenido Barcinas to Sewer Plant Supervisor for the Southern Section WWTP facilities. Mr. Barcinas currently holds Level IV WWT and Wastewater Collection certifications.
- Collaborated with the GWA Engineering Department, as well as design engineering firms and contractors, to advance several large WWT Capital Improvements Plan (CIP) projects. These projects included Agat-Santa Rita WWTP, Baza Gardens-Cross Island Road Project, Umatac WWTP Upgrade Project and the Northern WWTP Secondary Upgrade Project.
- Collaborated with asset manager to lay the groundwork for GWA's new computer maintenance management system (CMMS).

ASSET MANAGEMENT/ MAINTENANCE



Ma. Teogenesa “Geigy” Q. Salayon
Utility Services Administrator

In 2016, the Asset Management/Maintenance Division:

- Lead the development of the Lucity Computerized Maintenance Management System (CMMS).
- Initiated weekly and monthly maintenance meetings to establish GWA's asset management effort.
- Registered more than 538 new assets for various sites and facilities into the CMMS, including the new meter test facility and all bench test equipment.
- Configured more than 50 heavy equipment items into the CMMS to track maintenance.
- Initiated strategic asset management, which includes data collection on the physical condition and performance of assets. This updated information is used to calculate consequence and likelihood of failure to guide operations and maintenance planning, as well as modifications to existing processes.
- Developed dynamic and real-time asset management reports alongside the IT Division, focusing on project and construction management performance, leak analysis and water loss analysis.

WATER SYSTEM CONTROL CENTER (WSCC)



Ron Topasna
*Operations & Maintenance
Manager - Water Production &
Treatment*

In 2016, the Water System Control Center:

- Continued to improve operational average response time for corrective action for major water line leaks and sewer overflows. This quick response time allows trouble dispatchers to address concerned callers and provide immediate feedback.
- Continued improvement on information sharing between Engineering and Operations divisions for resolution of day-to-day issues.
- Initiated real-time collaboration on issues through the gathering of proper data with system operators and forwarding that information to the respective engineer for advice.
- Increased the WSCC's monitoring and management of resources to insure availability of in-house as well as rental services (backhoes, dump trucks, water tankers and crane and pump-trucks) so operations may accomplish their core functions. The WSCC works directly with operations division managers following up on equipment status.



GUAM **WATERWORKS** AUTHORITY

CS

COMPLIANCE
& SAFETY

COMPLIANCE & SAFETY



Paul Kemp, M.S.
Compliance & Safety
Assistant General Manager

GWA's performance in meeting regulatory requirements for protection of the public's health and safety, our environment, and the safety of our hardworking employees, is managed by the Compliance and Safety Section.

The November 10, 2011 ORDER FOR PRELIMINARY RELIEF RE: DEADLINES FOR OUTSTANDING PROJECTS UNDER THE AMENDED STIPULATED ORDER; CIVIL CASE No. 02-00035 (Court Order or CO) specifies 93 deliverable tasks which must be completed by GWA by December 31, 2020. The CO set priorities for GWA's capital improvement focus. There are a number of milestones within the CO, of which 74 have been completed on time, six have been completed later than the specified compliance date, four are incomplete or behind schedule and nine remain in progress and on time. The net performance of GWA's work on the CO is 93.5 percent.

In 2016, the Compliance & Safety Division:

- Initiated construction of a new Agat Wastewater Treatment Plant (WWTP), as part of the 2011 CO projects. [CO 11(c)]
- Completed ground water rule (GWR) compliance on GWA's northern and central well water systems, except for five wells needing electrical upgrades. [CO 22(c)]
- Achieved a CO performance rating of 93.5 percent.
- Maintained the GWA Sewer Hook-Up Revolving Loan Fund Program. For more details, see < <http://guamwaterworks.org/documents/SewerFactSheet05192010.pdf> >. [CO 20]
- Initiated construction on a new GWA Compliance Laboratory, designed by Architects Lagunaña, LLC.
- Exceeded all required water quality standards of the Ugum Surface Water Treatment Plant continuous membrane filtration (submerged) process.
- Achieved full compliance with the Safe Drinking Water Act.
- Initiated source control program development, assisted by EA Engineering, Science and Technology, Inc., including educational outreach and compliance inspections.
- Continued GWA advanced safety (specialized) training with utilities services and water maintenance and operations.
- Accomplished a GWA safety incident rating (based on lost time accidents) of 28 for 2016, 14 points below the national average of 42.

CC



GUAM **WATERWORKS** AUTHORITY

CUSTOMER
CARE

CUSTOMER CARE



Elizabeth “Lisa” San Agustin
Utility Services Administrator

GWA's Customer Service staff is truly committed to providing an outstanding customer experience by delivering excellent water and wastewater services in a safe, reliable, responsible and cost-effective manner. We work hard every day to keep that promise to our customers and were thrilled when the recent results of our 2016 Comprehensive Customer Survey noted an 88 percent satisfaction rate with GWA customer service. It is our goal to improve on that number with each customer served.

Of all GWA's organizational sections, Customer Care is the front line of our organization, and it is what the customer sees first. While system improvements and water quality testing are important, they often go unseen by the customer. We strive to deliver what is seen by the customer — superior customer service every day.

GWA's Customer Care Team comprises the following units:

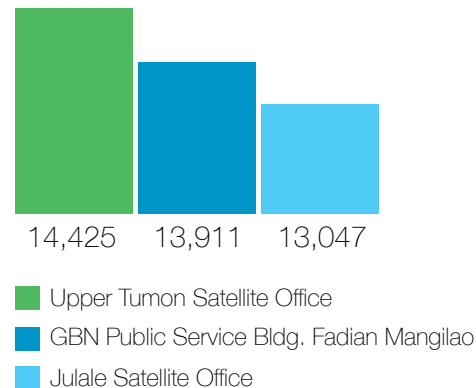
- Front line service deliverers from our Collections Unit
- Customer Call Center
- Customer Service Unit
- Disconnect/Reconnect Team
- Dispute Resolution and Document Control Team
- Meter Reading Unit
- Revenue Protection and Recovery Unit

CUSTOMER CARE

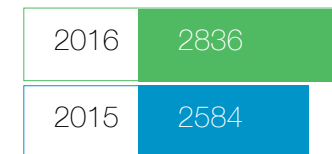
In 2016, GWA's Customer Care staff:

- Served 41,383 walk-in ratepayers.
- Improved the average walk-in wait time by 33 percent over last year.
- Decreased the collective average service time from 13 minutes to 12 minutes.
- Received 46,132 phone calls via the Customer Care Call Center.
- Responded to more than 2,836 ratepayer email requests, a 10 percent increase over last year.
- Terminated 3,611 accounts for non-payment, and negotiated more than 2,200 payment plans.
- Increased collections-to-sales ratios from 99 percent to 101 percent.
- Completed more than 12,000 field activities, including water activation, water termination and meter-related concerns.
- Achieved an average success rate of 99 percent of monthly electronic reads.
- Investigated 67 reports of unauthorized or illegal water usage.
- Achieved multiple increases in service level, quality and productivity benchmarks with limited staff resources.

2016 - Number of Walk-In Visits



2016 - Number of Emails Received





GUAM **WATERWORKS** AUTHORITY

S

SUPPORT
SERVICES

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GWA relies on many moving parts to accomplish its mission of providing excellent water and wastewater services in a safe, reliable, responsible, and cost-effective manner. The various divisions comprising Support Services are just such moving parts – they include Engineering/Planning, Procurement/Warehouse, Information Technology, and Human Resources/Training. These divisions each play a critical role in keeping GWA operating for the benefit of our ratepayers.

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ENGINEERING



Thomas “Tom” Cruz, P.E.
Chief Engineer

GWA Engineering continues to work on necessary water and wastewater capital improvements projects to meet the 2011 Court Order requirements, as well as to improve water and wastewater system functionality, reliability and efficiency. Critical to the success of capital improvements projects is the involvement of water and wastewater operations management, which continues to thrive through a robust communications protocol. GWA engineering also continues to engage with our consulting Program Management Office for support with federally funded projects and critical court order projects.

An update to the Capital Improvements Plan (CIP) was presented to the Consolidated Commission on Utilities (CCU) in November 2016, as part of the planning efforts to align improvement projects with available funding and track their progress. The updated CIP continues to reflect funding source usages at a higher-than-average annual encumbrance rate.

In addition to managing the delivery of all capital improvements projects, GWA engineering will begin to integrate in-house engineering, design and construction activities to handle smaller capital improvements projects. The goal of this initiative is to improve service delivery and maximize capital funding allotments through in-house engineering and operations involvement.

In 2016, the Engineering Division:

- Issued a notice to proceed for several U.S. EPA-funded projects such as the Macheche Sewer Improvements Design-Build; the Groundwater Wells Rehabilitation for D-3, D-17, D-18, D-22, and M-9; the Tumon and Tamuning Sewer Hotspot Design; the Water Resource Master Plan Update; and the Asan-Adelup-Hagatna Route 1 Sewer Line Rehabilitation and Replacement.
- Completed the updated CIP for 2016-2020, which included a substantial 2010, 2013 and 2016 bond fund reallocation of \$29 million for the Baza Gardens, Umatac-Merizo and Northern District wastewater treatment plants.
- Activated the new 0.5 million-gallon (MG) Agana Heights water storage tank and booster pump station to improve pressure delivery to portions of the Agana Heights-Sinajana area.
- Issued a notice to proceed for the fifth phase of the Line Replacement Project which will replace an estimated 50,000 linear feet of waterline throughout the island to replace leaking and old waterlines.
- Completed construction activities for the Energy Efficient Retrofit Pump Station Upgrade, which replaced older, less efficient pumps and motors to high efficiency at the Malojloj Line, Pago Bay and Windward Hills booster pump stations.

PROCUREMENT & SUPPLY



Vincent “Vince” Guerrero
Supply Management Administrator

In 2016, the Procurement & Supply Division:

- Augmented staffing to improve service delivery and reduce procurement backlog.
- Classified and organized materials based on priority, value and obsolescence.
- Collected an equitable recovery of 10 percent value over the Sensus / Automatic Meter Reading (AMR) salvage bid projected estimate.
- Increased secured yard storage to an additional 6,000 square feet.
- Increased overall warehouse efficiency in delivering better customer services and operational support with the hire of two storekeepers.

INFORMATION TECHNOLOGY



Victor "Vic" Torres
IT Manager

In 2016, the Information Technology Division:

- Completed the Customer Care & Billing (CC&B) system gap analysis.
- Implemented new functionality in the CC&B system identified in the gap analysis.
- Completed staff development and training in the CC&B system management.
- Implemented an SMS-based messaging system for customer outage notification, in conjunction with the GWA Public Information Office.

HUMAN RESOURCES & TRAINING



Zina Pangelinan-Charfauros
Personnel Services Administrator

In 2016, the Human Resources & Training Division:

- Instituted a new employee general orientation program.
- Completed a training and development program policy.
- Assisted in the development of 48 employees to advanced certification levels in four different categories in water and wastewater divisions.
- Reviewed and updated the Apprenticeship Program Standards, currently under the review of the U.S. Department of Labor (USDOL).
- Implemented a training tracking system-generated report to identify Guam EPA operator certifications that expire within a two-month period.
- Assisted the IT Department in procuring an e-learning subscription for services.
- Collaborated with the American Water Works Association (AWWA), Hawaii-Western Pacific Subsection, to make non-computer-based training materials for operations staff available in the HRD office. These materials will be housed in this location temporarily until a dedicated space is identified.
- Conducted and prepared the employee health benefits survey report.
- Implemented a revised "pay-for-performance" evaluation system approved by the CCU.