



“Better Water. Better Lives.”

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April 10, 2019

To Our Valued Customers:

The Guam Waterworks Authority (GWA) and the Consolidated Commission on Utilities (CCU) present the following *Draft Five-Year Financial Plan and Capital Improvement Program FY2020 – FY2024*, for public notice and input as required under the Ratepayer’s Bill of Rights (12GCA, Section 12102.1 through 12102.2). The release of the Draft 5-yr plan was approved by the CCU on April 4, 2019 and the initial Public Notice required under the Ratepayer’s Bill of Rights was published on April 8, 2019.

Over the next three months, the *Draft Five-Year Financial Plan and Capital Improvement Program FY2020 – FY2024*, will be available for public review and comment on GWA’s website (www.guamwaterworks.org). A series of public meetings is planned for the month of May to present the plan, and to provide additional opportunity for public input. The location and times for these public meetings will be posted on our website once the details have been finalized, and will also be posted at all GWA/GPA customer service centers.

The following pages outline GWA’s budget and financial projections over the next 5-year period, and details our Capital Improvement Program, including those projects in our previously approved *2018 Water Resource Master Plan*. The plan narrative discusses the major priorities GWA will face over the next five years, including regulatory compliance, reducing non-revenue water, service improvements in water distribution and wastewater collection, and how the CIP is necessary to support the continued renewal of our aging infrastructure systems to achieve improvement in the levels of service to our customers.

The financial plan presented in the tables and supporting documentation outline the revenues needed to address these priorities and provide for the operation and maintenance (O&M) of our water and wastewater systems, and sets out the proposed rate increases necessary for covering projected operational expenses and debt service for financing the required Capital Improvement Program. In terms of the impact to our customers, the table below outlines what our customers can expect based on average water consumption in various categories. Additional information on typical bills will also be posted on our website for public reference.

AVERAGE MONTHLY BILLING INFORMATION for Water & Sewer

Average Monthly Consumption by Rate Class	Current 2019	Proposed Rate Adjustments					5-yr Average Increase
		10.00% 2020	8.5% 2021	8.0% 2022	6.5% 2023	5.0% 2024	
1 Residential < 5k (4.0 Kgal)	\$ 62.98	\$ 65.29	\$ 67.47	\$ 72.84	\$ 74.77	\$ 76.38	
Increase		\$ 2.30	\$ 2.19	\$ 5.37	\$ 1.93	\$ 1.62	\$ 2.68
2 Residential > 5k (7.5 Kgal)	\$ 93.83	\$ 98.87	\$ 103.66	\$ 111.89	\$ 116.10	\$ 119.64	
Increase		\$ 5.04	\$ 4.78	\$ 8.23	\$ 4.22	\$ 3.54	\$ 5.16
3 Commercial 1 (35.91 Kgal)	\$ 740.38	\$ 813.24	\$ 882.36	\$ 952.03	\$ 1,012.93	\$ 1,064.09	
Increase		\$ 72.86	\$ 69.13	\$ 69.67	\$ 60.90	\$ 51.16	\$ 64.74
4 Commercial 2 (425.86 kgal)	\$ 12,292.07	\$ 13,501.73	\$ 14,649.37	\$ 15,806.05	\$ 16,817.18	\$ 17,666.58	
Increase		\$ 1,209.66	\$ 1,147.65	\$ 1,156.68	\$ 1,011.13	\$ 849.40	\$ 1,074.90
5 Commercial 3 (52.19 Kgal)	\$ 1,823.76	\$ 2,003.23	\$ 2,173.51	\$ 2,345.12	\$ 2,495.14	\$ 2,621.16	
Increase		\$ 179.48	\$ 170.27	\$ 171.61	\$ 150.02	\$ 126.02	\$ 159.48
6 Government - G6 (73.0 Kgal)	\$ 1,785.53	\$ 1,961.24	\$ 2,127.95	\$ 2,295.96	\$ 2,442.84	\$ 2,566.22	
Increase		\$ 175.71	\$ 166.71	\$ 168.02	\$ 146.88	\$ 123.38	\$ 156.14
7 Irrigation (20.96 Kgal)	\$ 119.98	\$ 131.78	\$ 142.99	\$ 154.28	\$ 164.15	\$ 172.44	
Increase		\$ 11.81	\$ 11.20	\$ 11.29	\$ 9.87	\$ 8.29	\$ 10.49
8 Agriculture (19.80 Kgal)	\$ 110.75	\$ 121.65	\$ 131.99	\$ 142.41	\$ 151.52	\$ 159.17	
Increase		\$ 10.90	\$ 10.34	\$ 10.42	\$ 9.11	\$ 7.65	\$ 9.68

The men and women of the Guam Waterworks Authority appreciate you, and your continued trust and support as we work hard to improve your water and wastewater systems and the Level of Service we provide to our island family and visitors. This 5-year plan begins the next phase in our on-going renewal of critical infrastructure, including water and sewer line replacements, which provide tangible benefits to you, our valued customers. Please return and visit our website for updates on this plan and our progress.

Sincerely,



MIGUEL C. BORDALLO, P.E.
General Manager



GILDA MAFNAS
Chief Financial Officer (Acting)

**Guam Waterworks Authority
Draft Five-Year Financial Plan and Capital Improvement Program
FY2020 – FY2024**

**Approved for Public Review
By the
Consolidated Commission on Utilities
April 4, 2019**

The Consolidated Commission on Utilities and Guam Waterworks Authority Management looks forward to continuing improvements in water and wastewater system performance and reliability that have been achieved over the past several years, and which are still needed to achieve full regulatory compliance, improve levels of service to our ratepayers, and set the groundwork for gains in efficiency which will prevent unnecessary cost increases. This five (5) year financial plan demonstrates the Authority's commitment to thoughtful planning, intelligent investment of resources, and innovative initiatives to achieve needed capital improvements, improve operational performance, and better manage regulatory compliance, with the overall objective of providing better service to our ratepayers.

Court Order Compliance

The CCU and Authority remain focused on meeting the requirements of the 2011 Federal Court Order and have made considerable progress in the execution of mandatory rehabilitation, repair, replacement and construction projects. GWA has also instituted an asset management and maintenance program to ensure capital investments are protected, and system performance does not back-slide to previously experienced conditions resulting in Clean Water Act (CWA) and or Safe Drinking Water Act (SDWA) violations.

The 2011 Court Order establishes deadlines for completing outstanding projects that were identified in a previous Stipulated Order originally issued in 2003 and subsequently amended in 2004 and 2006. GWA continues to work collaboratively with U.S. EPA and is maintaining a strong compliance record. Of 93 Court Ordered projects/requirements, 91 (97.8%) are completed or on-schedule for completion by the relevant deadlines, with only 2 projects either remaining or behind schedule for completion. It has been over seven years since the utility has been fined by U.S. EPA for not meeting mandated deadlines.

Secondary Treatment

Through the work funded by the previous 5-yr financial plan and capital improvement program, GWA has followed through with planning efforts and recently completed replacement of two of its non-compliant wastewater treatment plants (WWTPs) – the Agat WWTP and Baza Gardens WWTP. GWA now has a fully-compliant secondary treatment plant functioning in Agat-Santa Rita, and has eliminated discharge from the Baza Gardens plant, achieving improvements to effluent quality and compliance with EPA regulations.

EPA issued revised National Pollutant Discharge and Elimination Standards (NPDES) permits for the Northern District and Hagatna WWTPs that became effective on June 1, 2013. The NPDES permits include secondary treatment standards, some of which the existing WWTPs are unable to meet until a secondary treatment process is implemented. These two WWTPs are currently meeting the requirements of the Court Order with chemically enhanced primary treatment, but are not in compliance with the secondary treatment standards and will require significant upgrades to comply with the permit. GWA continues discussions with EPA regarding the timing of upgrades required for the Hagatna WWTP.

GWA is on schedule to complete secondary treatment upgrades at the NDWWTP by December 2021. In the fall of 2016, the Department of Defense (DOD), through the Office of Economic Adjustment (OEA), awarded the Authority grants totaling \$55.3 million to initiate projects associated with the design and construction of several water and wastewater system improvements, including upgrading the Northern District WWTP to full secondary treatment capability. In late 2017, the Authority received an additional grant award totaling \$117.9 million to augment funding for construction of the NDWWTP improvements. The NDWWTP secondary treatment upgrades have been designed (100% complete), and a contract for preliminary site-work construction has been awarded. The complete upgrade construction package is currently under procurement and slated for award by mid-year 2019.

Non-Revenue Water

One of the Authority's most challenging issues is non-revenue water. According to the latest figures, approximately 58% of water produced annually is not consumed or contributing to GWA's revenue, due to either water losses (leaks, breaks), theft, metering inaccuracies, unauthorized or unbilled consumption. Leaks for the most part account for the largest source of non-revenue water and GWA has expanded its on-going water loss control program, adding a pressure zone re-alignment program, district metering, and advanced leak detection techniques, in addition to traditional leak detection methods to help reduce non-revenue water. Real losses, or those attributable to leaks within the system, have been reduced to 49% of total water supplied.

A substantial amount of work and resources have been allotted to the distribution system to improve and optimize the Authority's loss prevention program. This includes such efforts as the prioritization and acceleration of leak repairs (backlog reduced by more than 90% in the last 2 years), the rehabilitation and upgrades of main lines; the installation of monitoring and measuring devices (i.e. master flow meters, production meters) to accurately measure water production and demand in water service areas, and pressure management, which aims to monitor and correctly align water pressure within each service area of the system to avoid over-pressurization that can lead to main breaks, increased line leakage, and more frequent pipe repairs/replacement. Most recently, GWA is currently pilot-testing satellite-based leak detection which uses advanced satellite imaging to detect potable water leaks within the GWA service area. The Authority will continue to make improvements in operations and proactively manage water loss, enhance leak detection efforts, and improve its leak repair performance.

Metering Challenges

GWA has seen short-term effects of a defective meter issue for a limited number of GWA's residential meter inventory. The Authority has stepped up meter testing and replacement efforts, and is phasing out the problematic meter model from its distribution system. The effect of the meter issue has been a reduction in projected revenues, requiring corresponding adjustments to expenditures. A related effect has been to negatively offset gains made in water loss control, by showing an artificial decrease in consumption figures in GWA's annual water audit calculations. The challenge moving forward will be to quickly replace the remaining defective meter model in our inventory, to which GWA has assigned additional personnel and resources to complete this by September 2019.

Water Resource Master Plan

In 2018, the Consolidated Commission on Utilities approved the adoption of the 2018 Water Resource Master Plan (WRMP) update, which outlines the Authority's 20-year planning projections, enterprise considerations, updated goals and objectives, and the Capital Improvement Program (CIP) needed to upgrade, maintain and sustain the GWA Water and Wastewater Systems. The Master Plan also contains the financial plan and model necessary to support the CIP, as well as programmatic maintenance and improvement initiatives over the 20-year planning period. The 2018 WRMP integrates the in-progress and remaining planned capital projects from the previous 2006 master plan (approximately 40% completed, and 45% in-progress/pending), and sets new capital improvement projects needed to keep GWA a well-run utility well into the future. This 20-year plan is intended to be implemented in 5-year increments, with the development of GWA's 5-year Capital Improvement Program and Financial Plan. Each 5-year CIP & Financial Plan is an opportunity for the Authority to make step-wise improvements in reliability, performance and compliance, continuing the upward trend in these areas that GWA has demonstrated in years past.

Using the information from the WRMP with updated planning projections for needed short-term compliance projects, this 5-year strategy outlines GWA's financial, operational and CIP plan covering Fiscal Years 2020-2024.

Revenue Requirements

To determine revenue requirements for Fiscal Years 2020 thru 2024, critical considerations focused on GWA's financial capacity to meet debt service obligations and preserve mandatory rate-coverage ratios without compromising the improvements gained thus far in operational performance. Inasmuch as this plan attempts to balance GWA's system-required investments with adaptable rate schedules for its customers, the primary driver is GWA's need to issue as many as three separate bonds, raising an estimated \$260 million in the next 5 years; the proceeds of which will supplement other fund sources for capital projects already in progress and execute new projects estimated to cost nearly \$500 million during this fiscal year and the proposed 5-year plan period.

The first bond issuance of \$134 million is planned in FY2020. The additional bond offers, slated to occur in FY 2022 at \$60 million and again in FY2023 for \$66 million, require legislative authorization for additional borrowing. The financial plan, as proposed, will support GWA's financial stability to meet these obligations, fund all cash reserve requirements, provide for internally funded capital outlays and pay for ongoing operations and maintenance (O&M) programs. Combined, these efforts will keep GWA in compliance with the Safe Drinking Water Act, Clean Water Act and other mandates.

The plan proposes an aggregate 38% rate increase across all rate structures and customer classes (with some exception to lifeline rates), phased in at the start of each fiscal year beginning with a 10% increase in FY2020, 8.5% in FY2021; 8% in FY2022; 6.5% in FY2023; and 5% in FY2024. Adjustments to GWA's lifeline rates is projected for FY2022. These increases are subject to yearly reviews for prudence and reasonableness. Additionally, this proposal is lower than previous adjustments implemented in the past decade with cumulative rate increases of 47% from FY2009 thru FY2013 and 53.5% between FY2014 and FY2018. There were no rate increases in FY2019.

Assuming this Financial Plan is approved, Table I below lays out the incremental adjustments from FY2020 thru FY2024 and projected revenue derived therein.

Table I	Projection				
	2020	2021	2022	2023	2024
Basic Charge -Water	10.00%	8.50%	8.00%	6.50%	5.00%
Lifeline Increase	0.00%	0.00%	8.00%	0.00%	0.00%
Non-Lifeline Increase	10.00%	8.50%	8.00%	6.50%	5.00%
Legislative Surcharge	3.60%	3.60%	3.50%	3.40%	3.45%
Customer Growth	0.50%	0.50%	0.50%	0.50%	0.50%
Demand Growth	0.00%	0.00%	0.00%	0.00%	0.00%
OPERATING REVENUES					
Water Revenues	\$77,204,920	\$83,410,356	\$90,162,843	\$95,753,251	\$100,357,472
Wastewater Revenues	43,990,559	47,006,664	50,816,250	53,527,730	55,758,216
Legislative Surcharge	3,855,370	4,185,719	4,397,793	4,552,730	4,853,770
Other Revenues	431,932	430,737	433,741	432,137	432,205
System Development Char	914,964	929,304	832,509	892,259	884,691
Total Operating Revenues	126,397,745	135,962,780	146,643,136	155,158,107	162,286,353

Debt Service

GWA currently has an estimated \$500 million in outstanding debt comprised mostly of revenue bonds and a subordinate loan. Payment of these debts make up the largest line item of GWA's annual budgets. With the additional borrowing, payments will increase from the current \$31 million to an estimated \$47 million a year by FY 2024. With the rates as proposed, GWA will continue to meet two standards of debt service coverage ratios of 1.75 and 1.25 respectively required by the Public Utilities Commission and GWA Bond Covenants.

Operations & Maintenance

In conjunction with capital programs to build the island's water and wastewater systems, O&M costs require corresponding growth in the coming years. This budget plan allows GWA to augment efforts that stabilize and standardize day-to-day routines of line replacements, leak repairs, asset management, and improved customer services and operations. O&M costs excluding depreciation are projected to increase an average 6% each year during this period. The increases are attributable largely to projected costs in contractual services, labor and water purchases.

Table II summarizes the O&M costs excluding depreciation from year to year by major cost category.

Table II

O&M Expenses	Projected FY2020	Projected FY2021	Projected FY2022	Projected FY2023	Projected FY2024
Water Purchases	\$ 9,902,414	\$ 10,694,607	\$ 11,550,175	\$ 12,474,189	\$ 13,472,124
Power Purchases	\$ 14,935,381	\$ 15,234,089	\$ 15,538,771	\$ 15,849,546	\$ 16,166,537
Salaries & Benefits	27,199,775	28,677,206	29,340,741	30,018,089	30,709,538
Administrative and General Expenses	12,066,903	12,410,865	12,459,954	12,697,966	13,139,631
Contractual Expense	6,054,073	7,397,524	8,675,011	10,009,518	11,832,223
Retiree Supplemental Annuities and health	3,763,479	3,933,179.8	4,112,018	4,300,483	4,499,094
Total Operating Expenses	73,922,025	78,347,471	81,676,670	85,349,791	89,819,147
(Less Depreciation)					
Increase/(Decrease)		9%	6%	4%	4%
					5%

Utilities

Utility costs (water and power) are a major cost component of GWA's annual expenses making up about 33% of operating costs (excluding depreciation). Energy costs are driven by water production and pumping activities; GWA uses the kilowatt hours (KWH) required for both activities to estimate power purchases that meet demand. While KWH remains relatively unchanged for the next 5 years, the plan provides for adjustments in the cost of fuel. Future fuel increases that exceed budget estimates can be offset by decreases in demand that result from reducing non-revenue water.

Water purchases from the US Navy to supplement GWA sources for customers in certain areas are based primarily on historical rate increases per kilo-gallon of water charged by the Navy to GWA. In the previous 5 years, rates increased an average of 14% each year. While the rates were recently reduced in FY2019, GWA assumes an 8% increase moving forward. GWA does not plan to increase the volume of water purchased.

Personnel

In the first two years of this plan salaries and benefits will increase an average of 8% due to updating GWA's compensation plan and recruiting for unfilled positions and additional staff. A market review of GWA positions and pay scales was updated in 2017 by consultant Alan Searle and Associates that determined salaries were below the 5th market percentile of the 2017 data. Salary projections assume migration of GWA's compensation plan to the 20th market percentile by the end of FY2020. Thereafter, base salaries adjust an average of 2% per employee per year as determined by annual performance reviews. This plan provides for 400 full time employees (FTEs) in the first year and 412 FTEs from FY2021 moving forward.

Premium pay, such as Night Differential and Holiday Work are estimated at 1.4 and 1% respectively of total base pay, which aligns with historical levels. Overtime is capped at \$1 million each year assuming GWA maintains authorized staff levels. Costs for medical, dental and life insurance benefits are based on the current average rate GWA contributes for each benefit-type, then adjusts upward by 2% each year. Medicare is budgeted at 1.45% of base salaries; and retirement benefits are projected at 28% of base salaries increasing less than half a percent each year thereafter.

In the first six months of the Fiscal Year 2019, GWA averaged 365 FTEs each pay period. GWA anticipates filling all 400 positions by the end of the fiscal period with ongoing recruitment to fill positions as they become vacant through normal attrition from retirement, resignation and other means of separation. Staffing levels have steadily increased over the previous 5 years, mostly by under-filling senior positions with entry level recruits as veteran employees retire. Recruitment efforts have extended beyond local media to industry organizations abroad for those critical positions deemed "hard to fill" as a result of professional certification or other requirements.

Table III

Salaries & Benefits	Projected FY 2020	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024
Salaries & Wages	19,254,479	20,211,432	20,679,621	21,157,173	21,644,277
Benefits & Retirement	7,945,297	8,465,774	8,661,120	8,860,916	9,065,261
Total	27,199,775	28,677,206	29,340,741	30,018,089	30,709,538
Full-Time Employee Count					
*Filled	363	363	363	363	363
*Vacant	37	37	37	37	37
New		12	12	12	12
TOTAL	400	412	412	412	412

Administrative & General Expenses

General overhead costs that comprise these categories of expenses altogether remain relatively stable over the next 5 years with 2% and 3% adjustments for inflation and other budgetary considerations. This is applicable across the individual line items that comprise this expense group with the exception of chemicals and sludge.

Chemical costs escalate 14% in FY2020 over the current year as a result of contractual price increases for liquid chlorine and other treatment chemicals. Future projections are adjusted assuming a reduction in wastewater chemicals upon completion of the secondary treatment upgrade at the Northern District Wastewater Treatment Plant in December 2021 and minor changes to price and timing of chemical purchases for water treatment.

In FY2020 sludge costs reflect a slight reduction from the FY2019 budget based on actual cost per ton for disposal. The volume of sludge is generally based on wastewater flow. For planning purposes, projections applied a 1% increase in flow each year and 2% increase on the cost per ton for disposal.

Table IV

Administrative and General	Projected FY2020	Projected FY2021	Projected FY2022	Projected FY2023	Projected FY2024
Sludge	1,689,381	1,740,401	1,792,961	1,847,108	1,902,891
Chemicals	2,539,046	2,572,745	2,372,530	2,293,729	2,337,531
Materials & Supplies	2,369,442	2,440,525	2,467,552	2,555,410	2,632,073
Transportation Expense	477,684	492,014	506,775	521,978	537,637
Telephone & Communication	186,069	191,012	196,742	202,645	208,724
Claims	66,351	68,342	70,392	72,504	74,679
Insurance	982,136	1,011,600	1,041,948	1,073,206	1,105,403
Training & Travel	375,523	411,517	423,863	436,579	535,043
Advertising	145,312	149,672	154,162	158,787	163,550
Regulatory	309,358	318,639	328,198	338,044	348,186
Bad Debts Provision	1,781,672	1,835,123	1,890,176	1,946,882	2,005,288
Miscellaneous	1,144,928	1,179,276	1,214,654	1,251,094	1,288,627
	12,066,903	12,410,865	12,459,954	12,697,966	13,139,631

Contractual Expenses

As GWA shifts from manual labor-intensive processes to automated technologies that will capture real-time data, protect system information and manage assets, significant increases in the Information Technology (IT) contractual services are expected over the next 5 years to support day-to-day business operations. GWA will be upgrading its 20-year-old JD Edwards World Enterprise system to the new E-1 environment. While the initial upgrade is included in the CIP and Financial plan, GWA must fund annual services and support that follow. These include provisions for user licenses, software maintenance and service support, hardware upgrades and systems connectivity. Initial estimates for annual costs following implementation to support E-1 alone is earmarked at \$340,000 upwards to \$500,000 per year depending on optional features GWA requires. As GWA expands its technology systems with features such as cloud-based back-up, content management, asset management, and other system securities, IT contractual costs are projected to escalate over the financial plan period.

Other contractual services that are not considered as IT, Rental or Lab services encompass a large of array of support for daily operations. These include subordinate activities like grounds maintenance, pump and motor rewinding, machining work, fabrication, security, printing and the like. While some of these services are funded annually, more recent services have been included for on-demand engineering and land surveying services to provide interim needs below the capitalization threshold, particularly in light of the deliberate phasing-out of Program Management Office (Brown & Caldwell) contract. Services for technical diagnostics and repairs are likewise funded for operating equipments at the various plants and stations that are associated with exclusive agreements with manufacturers.

Table V

Contractual Services	Projected FY 2020	Projected FY 2021	Projected FY 2022	Projected FY 2023	Projected FY 2024
Other	3,073,788	3,509,524	4,234,041	5,057,747	5,994,430
Rental (Building)	474,142	488,366	503,017	518,107	533,651
Rental (Equipment)	1,003,554	1,053,733	1,243,405	1,417,482	1,601,754
Finance & Information Technology	1,065,238	1,855,138	2,189,063	2,495,532	3,166,119
Lab Testing	430,899	480,763	495,186	510,041	525,343
Legal	6,452	10,000	10,300	10,609	10,927
Total	\$6,054,073	\$7,397,524	\$8,675,011	\$10,009,518	\$11,832,223

Internally Funded CIP

Internally funded capital outlays will also be funded through the proposed rate adjustments. Service rates that support capital outlays reduce the amount of financing required by GWA, hence, saving rate-payers the cost of interest and other associated expenses. These also allow GWA to fund smaller capital projects (less than \$1 million) that may not qualify for bond funds under the terms defined by GWA's bond indenture.

This 5-Year Financial Plan positions GWA to continue investing in long-term, lasting improvements for GWA customers, the environment and our community.

The following pages outlines GWA's financial plan for the next 5 years.

GUAM WATERWORKS 5-YEAR RATE PLAN	Projection				
	2020	2021	2022	2023	2024
Basic Charge -Water	10.00%	8.50%	8.00%	6.50%	5.00%
Lifeline Increase	0.00%	0.00%	8.00%	0.00%	0.00%
Non-Lifeline Increase	10.00%	8.50%	8.00%	6.50%	5.00%
Legislative Surcharge	3.60%	3.60%	3.50%	3.40%	3.45%
Customer Growth	0.50%	0.50%	0.50%	0.50%	0.50%
Demand Growth	0.00%	0.00%	0.00%	0.00%	0.00%
OPERATING REVENUES					
Water Revenues	\$ 77,204,920	\$83,410,356	\$90,162,843	\$95,753,251	\$100,357,472
Wastewater Revenues	43,990,559	47,006,664	50,816,250	53,527,730	55,758,216
Legislative Surcharge	3,855,370	4,185,719	4,397,793	4,552,730	4,853,770
Other Revenues	431,932	430,737	433,741	432,137	432,205
System Development Charge	914,964	929,304	832,509	892,259	884,691
Total Operating Revenues	126,397,745	135,962,780	146,643,136	155,158,107	162,286,353
O & M EXPENSES					
Power Purchases	14,935,381	15,234,089	15,538,771	15,849,546	16,166,537
Water Purchases	9,902,414	10,694,607	11,550,175	12,474,189	13,472,124
	24,837,795	25,928,696	27,088,946	28,323,736	29,638,662
Salaries and Benefits	27,199,775	28,677,206	29,340,741	30,018,089	30,709,538
Administrative and General Expenses	12,066,903	12,410,865	12,459,954	12,697,966	13,139,631
Depreciation Expense	21,962,670	22,271,032	22,300,621	22,648,171	24,038,420
Contractual Expense	6,054,073	7,397,524	8,675,011	10,009,518	11,832,223
Retiree Supplemental Annuities/Health care costs	3,763,479	3,933,180	4,112,018	4,300,483	4,499,094
Total Operating Expenses	95,884,695	100,618,503	103,977,291	107,997,963	113,857,568
Earnings (Loss) from Operations	30,513,050	35,344,278	42,665,845	47,160,144	48,428,785
Interest Income-Bond 2013,2014 Refunding,2016,2017 Re	1,350,758	1,539,593	1,303,222	1,397,858	1,413,558
Interest Income-Other Funds	216,573	248,637	210,495	225,235	228,122
Interest Income-SDC	25,567	29,850	26,760	27,392	28,001
Interest Expense-Bond 2013,2014 Refunding,2016,2017 F	(32,105,188)	(31,659,950)	(34,164,716)	(36,851,565)	(36,200,087)
Interest Expense-BOG	(67,345)	-	-	-	-
AFUDC	-	-	-	-	-
Amortization of Discount, Premium and Issuance Costs	(403,640)	(276,930)	(298,049)	(326,206)	(300,395)
Grants & other contributions (net of federal expenditures)	39,732,857	39,732,857	33,430,130	8,000,000	8,000,000
Deferred outflows from Pension	(344,114)	(269,263)	(306,689)	(287,976)	(297,332)
Recoveries of bad debts/ Miscellaneous Revenue	-	-	-	-	-
Loss on Defeasance Bond- Refunding	-	-	-	-	-
Loss on Asset Disposal	-	-	-	-	-
Loss on Inventory write-down	-	-	-	-	-
Prior Year Adjustment	-	-	-	-	-
Net Income (Loss)	38,918,519	44,689,072	42,866,999	19,344,881	21,300,653

GUAM WATERWORKS 5-YEAR RATE PLAN		Projection				
Continued	2020	2021	2022	2023	2024	
INCREASE (DECREASE) in Capital	38,918,519	44,689,072	42,866,999	19,344,881	21,300,653	
BOND DEBT SERVICE	34,175,188	34,229,950	43,204,135	43,195,705	47,217,036	
DEBT SERVICE COVERAGE CALCULATION - Section 6.12						
Earnings (Loss) from Operations	30,513,050	35,344,278	42,665,845	47,160,144	48,428,785	
Investment Income-Other funds	216,573	248,637	210,495	225,235	228,122	
COLA	644,877	688,520	735,117	784,867	837,984	
System Development Charge	(914,964)	(929,304)	(832,509)	(892,259)	(884,691)	
Depreciation	21,962,670	22,271,032	22,300,621	22,648,171	24,038,420	
Balance Available for Debt Service - Section 6.12	52,422,206	57,623,163	65,079,569	69,926,159	72,648,621	
Debt Service Coverage (1.25X) - Section 6.12	1.53	1.68	1.51	1.62	1.54	
DEBT SERVICE COVERAGE CALCULATION - PUC Debt Ratio						
Balance Available for Debt Service	52,422,206	57,623,163	65,079,569	69,926,159	72,648,621	
Transfer - Reserve for O & M	-	-	-	-	-	
Transfer - Reserve for Debt Service	-	-	8,000,000	-	5,000,000	
2017 Refunding bond savings	-	-	-	-	-	
Available for Debt Service -Reserve for Debt Service	11,244,664	11,244,664	11,244,664	19,244,664	19,244,664	
Balance Available for Debt Service - PUC	63,666,870	68,867,828	84,324,235	89,170,823	96,893,286	
Debt Service Coverage (1.75X) - PUC	1.86	2.01	1.95	2.06	2.05	
CASH FLOW STATEMENT						
Net Income (Loss)	38,918,519	44,689,072	42,866,999	19,344,881	21,300,653	
Depreciation & Amortization	22,366,310	22,547,952	22,598,670	22,974,378	24,338,815	
AFUDC	-	-	-	-	-	
Principal Payments - Bonds	(8,770,000)	(9,270,000)	(12,039,419)	(12,644,140)	(14,316,949)	
Working Capital Change (Increase)Decrease	(878,321)	(542,131)	(932,331)	(625,421)	(319,479)	
Principal Payments-BOG	(2,780,552)	-	-	-	-	
Transfer to Trust	-	-	-	-	-	
Deferred outflows from pension	344,114	269,283	306,689	287,976	297,332	
Gross Bond Proceeds	134,000,000	-	60,000,000	66,000,000	-	
Deposit to Bond Construction Fund	(108,925,581)	-	(48,772,648)	(53,649,913)	-	
Deposit to CAP Interest Fund	(13,400,000)	-	(4,027,352)	(6,800,000)	-	
Deposit to Debt Service Reserve Fund	(8,994,419)	-	(6,000,000)	(4,430,087)	-	
Cost of Issuance/Underwriter Discount	(2,680,000)	-	(1,200,000)	(1,320,000)	-	
Loss on Defeasance Bond/Amortization of Disc't, Premium&	403,640	276,930	298,049	326,206	300,395	
Revenue Funded CAPEX	-	-	-	-	-	
Bond Reserve Requirement	-	-	-	-	(449,399)	
System Development Charge	(914,964)	(929,304)	(832,509)	(892,259)	(884,691)	
Working Capital Reserve for CAPEX/PAYGO	(15,000,000)	(15,000,000)	(20,500,000)	(21,000,000)	(24,500,000)	
Working Capital Reserve for O & M	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)	
Working Capital Reserve for Debt Service	-	(8,000,000)	-	(5,000,000)	-	
Grants and Contributions	(39,732,857)	(39,732,857)	(33,430,130)	(8,000,000)	(8,000,000)	
Transfer from Capitalized Interest Fund	6,700,000	6,700,000	3,000,000	6,300,000	3,300,000	
Prior Year Adjustment & Loss on Asset Disposal/Invty write	-	-	-	-	-	
Transfer to 2017 refunding savings	-	-	-	-	-	
Cash Surplus (Deficit)	155,888	508,935	836,019	571,621	566,678	
Beginning Balance	3,094,384	3,250,272	3,759,207	4,595,226	5,166,846	
Ending Balance	\$ 3,250,272	\$ 3,759,207	\$ 4,595,226	\$ 5,166,846	5,733,524	

GUAM WATERWORKS AUTHORITY
RATE PLAN (PROPOSED) FY2020 - 2024

	Projection				
	2020	2021	2022	2023	2024
Basic Charge -Water	10.00%	8.50%	8.00%	6.50%	5.00%
Lifeline Increase	0.00%	0.00%	8.00%	0.00%	0.00%
Non-Lifeline Increase	10.00%	8.50%	8.00%	6.50%	5.00%
Legislative Surcharge	3.60%	3.60%	3.50%	3.40%	3.45%
Customer Growth	0.50%	0.50%	0.50%	0.50%	0.50%
Demand Growth	0.00%	0.00%	0.00%	0.00%	0.00%
OPERATING REVENUES					
Water Revenues	\$ 77,204,920	\$ 83,410,356	\$ 90,162,843	\$ 95,753,251	\$ 100,357,472
Wastewater Revenues	43,990,559	47,006,664	50,816,250	53,527,730	55,758,216
Legislative Surcharge	3,855,370	4,185,719	4,397,793	4,552,730	4,853,770
Other Revenues	431,932	430,737	433,741	432,137	432,205
System Development Charge	914,964	929,304	832,509	892,259	884,691
Total Operating Revenues	126,397,745	135,962,780	146,643,136	155,158,107	162,286,353
O & M EXPENSES					
Power Purchases	14,935,381	15,234,089	15,538,771	15,849,546	16,166,537
Water Purchases	9,902,414	10,694,607	11,550,175	12,474,189	13,472,124
	24,837,795	25,928,696	27,088,946	28,323,736	29,638,662
Salaries and Benefits	27,199,775	28,677,206	29,340,741	30,018,089	30,709,538
<i>Intentionally Left Blank</i>					
Administrative and General Expenses	12,066,903	12,410,865	12,459,954	12,697,966	13,139,631
<i>Intentionally Left Blank</i>					
Depreciation Expense	21,962,670	22,271,032	22,300,621	22,648,171	24,038,420
<i>Intentionally Left Blank</i>					
Contractual Expense	6,054,073	7,397,524	8,675,011	10,009,518	11,832,223
<i>Intentionally Left Blank</i>					
Retiree Supplemental Annuities/Health care costs	3,763,479	3,933,180	4,112,018	4,300,483	4,499,094
Total Operating Expenses	95,884,695	100,618,503	103,977,291	107,997,963	113,857,568
Earnings (Loss) from Operations	30,513,050	35,344,278	42,665,845	47,160,144	48,428,785
Interest Income-Bond 2013,2014 Refunding,2016,2017 Refunding	1,350,758	1,539,593	1,303,222	1,397,858	1,413,558
Interest Income-Other Funds	216,573	248,637	210,495	225,235	228,122
Interest Income-SDC	25,567	29,850	26,760	27,392	28,001
Interest Expense-Bond 2013,2014 Refunding,2016,2017 Refunding	(32,105,186)	(31,659,950)	(34,164,716)	(36,851,565)	(36,200,087)
Interest Expense-BOG	(67,345)	-	-	-	-
AFUDC	-	-	-	-	-
Amortization of Discount, Premium and Issuance Costs	(403,640)	(276,930)	(298,049)	(326,206)	(300,395)
Grants & other contributions (net of federal expenditures)	39,732,857	39,732,857	33,430,130	8,000,000	8,000,000
Deferred outflows from Pension	(344,114)	(269,263)	(306,689)	(287,976)	(297,332)
Net Income (Loss)	38,918,519	44,689,072	42,867,000	19,344,881	21,300,653
INCREASE (DECREASE) in Capital	38,918,519	44,689,072	42,867,000	19,344,881	21,300,653
BOND DEBT SERVICE	34,175,188	34,229,950	43,204,135	43,195,705	47,217,036

**GUAM WATERWORKS AUTHORITY
RATE PLAN (PROPOSED)FY2020 - 2024**

	Projection				
	2020	2021	2022	2023	2024
Basic Charge -Water	10.00%	8.50%	8.00%	6.50%	5.00%
Lifeline Increase	0.00%	0.00%	8.00%	0.00%	0.00%
Non-Lifeline Increase	10.00%	8.50%	8.00%	6.50%	5.00%
Legislative Surcharge	3.60%	3.60%	3.50%	3.40%	3.45%
Customer Growth	0.50%	0.50%	0.50%	0.50%	0.50%
Demand Growth	0.00%	0.00%	0.00%	0.00%	0.00%
DEBT SERVICE COVERAGE CALCULATION - Section 6.12					
Earnings (Loss) from Operations	<u>30,513,050</u>	<u>35,344,278</u>	<u>42,665,845</u>	<u>47,160,144</u>	<u>48,428,785</u>
Investment Income-Other funds	216,573	248,637	210,495	225,235	228,122
COLA	644,877	688,520	735,117	784,867	837,984
System Development Charge	(914,964)	(929,304)	(832,509)	(892,259)	(884,691)
Depreciation	<u>21,962,670</u>	<u>22,271,032</u>	<u>22,300,621</u>	<u>22,648,171</u>	<u>24,038,420</u>
Balance Available for Debt Service - Section 6.12	<u>52,422,206</u>	<u>57,623,163</u>	<u>65,079,569</u>	<u>69,926,159</u>	<u>72,648,621</u>
Debt Service Coverage (1.25X) - Section 6.12	1.53	1.68	1.51	1.62	1.54
DEBT SERVICE COVERAGE CALCULATION - PUC Debt Ratio					
Balance Available for Debt Service	<u>52,422,206</u>	<u>57,623,163</u>	<u>65,079,569</u>	<u>69,926,159</u>	<u>72,648,621</u>
Transfer - Reserve for O & M			8,000,000		5,000,000
Transfer - Reserve for Debt Service					
2017 Refunding bond savings					
Available for Debt Service -Reserve for Debt Service	<u>11,244,664</u>	<u>11,244,664</u>	<u>11,244,664</u>	<u>19,244,664</u>	<u>19,244,664</u>
Balance Available for Debt Service - PUC	<u>63,666,870</u>	<u>68,867,828</u>	<u>84,324,235</u>	<u>89,170,823</u>	<u>96,893,286</u>
Debt Service Coverage (1.75X) - PUC	1.86	2.01	1.95	2.06	2.05
CASH FLOW STATEMENT					
Net Income (Loss)	<u>38,918,519</u>	<u>44,689,072</u>	<u>42,867,000</u>	<u>19,344,881</u>	<u>21,300,653</u>
Depreciation & Amortization	22,366,310	22,547,962	22,598,670	22,974,378	24,338,615
AFUDC	-	-	-	-	-
Principal Payments - Bonds	(8,770,000)	(9,270,000)	(12,039,419)	(12,644,140)	(14,316,949)
Working Capital Change (Increase)Decrease	(878,321)	(542,131)	(932,331)	(625,421)	(319,479)
Principal Payments-BOG	(2,780,552)	-	-	-	-
Transfer to Trust	-	-	-	-	-
Deferred outflows from pension	344,114	269,263	306,689	287,976	297,332
Gross Bond Proceeds	134,000,000	-	60,000,000	66,000,000	-
Deposit to Bond Construction Fund	(108,925,581)	-	(48,772,648)	(53,649,913)	-
Deposit to CAP Interest Fund	(13,400,000)	-	(4,027,352)	(6,600,000)	-
Deposit to Debt Service Reserve Fund	(8,994,419)	-	(6,000,000)	(4,430,087)	-
Cost of Issuance/Underwriter Discount	(2,680,000)	-	(1,200,000)	(1,320,000)	-
Loss on Defeasance Bond/Amortization of Discr. Premium&IssuanceCost	403,640	276,930	298,049	326,206	300,395
Revenue Funded CAPEX	-	-	-	-	-
Bond Reserve Requirement	-	-	-	-	(449,399)
System Development Charge	(914,964)	(929,304)	(832,509)	(892,259)	(884,691)
Working Capital Reserve for CAPEX/PAYGO	(15,000,000)	(15,000,000)	(20,500,000)	(21,000,000)	(24,500,000)
Working Capital Reserve for O & M	(500,000)	(500,000)	(500,000)	(500,000)	(500,000)
Working Capital Reserve for Debt Service	-	(8,000,000)	-	(5,000,000)	-
Grants and Contributions	(39,732,857)	(39,732,857)	(33,430,130)	(8,000,000)	(8,000,000)
Transfer from Capitalized Interest Fund	6,700,000	6,700,000	3,000,000	6,300,000	3,300,000
Prior Year Adjustment & Loss on Asset Disposal/Invty writedown	-	-	-	-	-
Transfer to 2017 refunding savings	-	-	-	-	-
Cash Surplus (Deficit)	<u>155,888</u>	<u>508,935</u>	<u>836,019</u>	<u>571,621</u>	<u>566,678</u>
Beginning Balance	<u>3,094,384</u>	<u>3,250,272</u>	<u>3,759,207</u>	<u>4,595,226</u>	<u>5,166,846</u>
Ending Balance	<u>\$ 3,250,272</u>	<u>\$ 3,759,207</u>	<u>\$ 4,595,226</u>	<u>\$ 5,166,846</u>	<u>\$ 5,733,524</u>

	Projection				
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Water Revenues	\$ 77,204,920	\$ 83,410,356	\$ 90,162,843	\$ 95,753,251	\$ 100,357,472
Residential					
Basic Charge	11,776,179	12,841,040	13,937,665	14,917,831	15,742,041
Lifeline Demand Charge	5,063,209	5,063,209	5,468,265	5,468,265	5,468,265
Non-Lifeline Demand Charge	20,544,380	22,290,652	24,073,904	25,638,708	26,920,643
	<u>37,383,767</u>	<u>40,194,901</u>	<u>43,479,834</u>	<u>46,024,804</u>	<u>48,130,950</u>
Commercial					
Basic Charge	1,202,476	1,311,210	1,423,187	1,523,273	1,607,434
Non-Lifeline Demand Charge	14,086,217	15,283,546	16,506,229	17,579,134	18,458,091
	<u>15,288,693</u>	<u>16,594,756</u>	<u>17,929,417</u>	<u>19,102,407</u>	<u>20,065,525</u>
Federal					
Basic Charge	6,732	7,341	7,968	8,528	8,999
Non-Lifeline Demand Charge	31,072	33,713	36,410	38,776	40,715
	<u>37,804</u>	<u>41,053</u>	<u>44,377</u>	<u>47,304</u>	<u>49,714</u>
Government					
Basic Charge	289,549	315,732	342,695	366,795	387,061
Non-Lifeline Demand Charge	7,781,905	8,443,367	9,118,837	9,711,561	10,197,139
	<u>8,071,455</u>	<u>8,759,099</u>	<u>9,461,532</u>	<u>10,078,356</u>	<u>10,584,200</u>
Hotel					
Basic Charge	127,596	139,134	151,016	161,636	170,566
Non-Lifeline Demand Charge	15,743,088	17,081,251	18,447,751	19,646,855	20,629,197
	<u>15,870,684</u>	<u>17,220,384</u>	<u>18,598,767</u>	<u>19,808,491</u>	<u>20,799,764</u>
Golf					
Basic Charge	8,592	9,368	10,169	10,884	11,485
Non-Lifeline Demand Charge	34,036	36,929	39,883	42,475	44,599
	<u>42,627</u>	<u>46,297</u>	<u>50,051</u>	<u>53,359</u>	<u>56,084</u>
Agriculture					
Basic Charge	106,039	115,628	125,502	134,328	141,750
Non-Lifeline Demand Charge	356,091	386,359	417,268	444,390	466,609
	<u>462,130</u>	<u>501,987</u>	<u>542,770</u>	<u>578,718</u>	<u>608,359</u>
Irrigation					
Basic Charge	11,120	12,126	13,161	14,087	14,865
Non-Lifeline Demand Charge	36,639	39,754	42,934	45,725	48,011
	<u>47,759</u>	<u>51,879</u>	<u>56,095</u>	<u>59,811</u>	<u>62,876</u>
Total	\$ 77,204,920	\$ 83,410,356	\$ 90,162,843	\$ 95,753,251	\$ 100,357,472

	Projection				
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Wastewater Revenues	\$ 43,990,559	\$ 47,006,664	\$ 50,816,250	\$ 53,527,730	\$ 55,758,216
Residential					
Lifeline Demand Charge	9,038,651	9,083,844	9,859,605	9,908,903	9,958,447
Non-Lifeline Demand Charge	-	-	-	-	-
	<u>9,038,651</u>	<u>9,083,844</u>	<u>9,859,605</u>	<u>9,908,903</u>	<u>9,958,447</u>
Commercial 1					
Lifeline Demand Charge	-	-	-	-	-
Non-Lifeline Demand Charge	3,885,148	4,215,386	4,552,617	4,848,537	5,090,964
	<u>3,885,148</u>	<u>4,215,386</u>	<u>4,552,617</u>	<u>4,848,537</u>	<u>5,090,964</u>
Commercial 2 & Hotel					
Lifeline Demand Charge	-	-	-	-	-
Non-Lifeline Demand Charge	15,338,148	16,641,891	17,973,242	5,642,418	5,924,539
	<u>15,338,148</u>	<u>16,641,891</u>	<u>17,973,242</u>	<u>5,642,418</u>	<u>5,924,539</u>
Commercial 3					
Lifeline Demand Charge	-	-	-	-	-
Non-Lifeline Demand Charge	4,521,288	4,905,598	5,642,418	5,642,418	5,924,539
	<u>4,521,288</u>	<u>4,905,598</u>	<u>5,642,418</u>	<u>5,642,418</u>	<u>5,924,539</u>
Navy/Airforce					
Lifeline Demand Charge	-	-	-	-	-
Non-Lifeline Demand Charge	7,633,346	8,282,181	9,526,164	9,526,164	10,002,472
	<u>7,633,346</u>	<u>8,282,181</u>	<u>9,526,164</u>	<u>9,526,164</u>	<u>10,002,472</u>
Government					
Lifeline Demand Charge	-	-	-	-	-
Non-Lifeline Demand Charge	3,573,977	3,877,765	4,460,206	4,460,206	4,683,216
	<u>3,573,977</u>	<u>3,877,765</u>	<u>4,460,206</u>	<u>4,460,206</u>	<u>4,683,216</u>
	\$ 43,990,559	\$ 47,006,664	\$ 50,816,250	\$ 53,527,730	\$ 55,758,216

PROJECTION

Salaries & Benefits	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Salaries and Wages	21,428,249	22,362,774	22,819,989	23,286,349	23,762,036
Premium Pay					
Overtime	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Night Differential	306,967	320,051	326,452	332,981	339,640
Holiday	219,262	228,608	233,180	237,843	242,600
Total Premium Pay	1,526,230	1,548,659	1,559,632	1,570,824	1,582,241
Gross Salaries & Premium Pay	22,954,479	23,911,432	24,379,621	24,857,173	25,344,277
Less: Capitalized labor	(3,700,000)	(3,700,000)	(3,700,000)	(3,700,000)	(3,700,000)
Net Salaries & Premium Pay	19,254,479	20,211,432	20,679,621	21,157,173	21,644,277
Benefits					
Insurance (Medical, Dental, Life)	1,597,648	1,631,681	1,666,457	1,701,993	1,738,306
Medicare	317,931	331,481	338,111	344,873	351,771
Retirement (28%)	6,029,718	6,309,573	6,459,083	6,612,049	6,768,550
New Employee Benefits (12)		193,038	197,469	202,001	206,636
Total Benefits	7,945,297	8,465,774	8,661,120	8,860,916	9,065,261
Total Salaries & Benefits	27,199,775	28,677,206	29,340,741	30,018,089	30,709,538
Employee Count					
Filled	363	400	400	400	400
Vacant	37	0	0	0	0
New positions		12	12	12	12
TOTAL	400	412	412	412	412

PROJECTION

<u>Administrative and General Expenses</u>	<u>FY2020</u>	<u>FY2021</u>	<u>FY2022</u>	<u>FY2023</u>	<u>FY2024</u>
Sludge	1,689,381	1,740,401	1,792,961	1,847,108	1,902,891
Chemicals	2,539,046	2,572,745	2,372,530	2,293,729	2,337,531
Materials & Supplies	2,369,442	2,440,525	2,467,552	2,555,410	2,632,073
Transportation Expense	477,684	492,014	506,775	521,978	537,637
Telephone & Communication	186,069	191,012	196,742	202,645	208,724
Claims	66,351	68,342	70,392	72,504	74,679
Insurance	982,136	1,011,600	1,041,948	1,073,206	1,105,403
Training & Travel	375,523	411,517	423,863	436,579	535,043
Advertising	145,312	149,672	154,162	158,787	163,550
Regulatory	309,358	318,639	328,198	338,044	348,186
Bad Debts Provision	1,781,672	1,835,123	1,890,176	1,946,882	2,005,288
Miscellaneous	1,144,928	1,179,276	1,214,654	1,251,094	1,288,627
	12,066,903	12,410,865	12,459,954	12,697,966	13,139,631

PROJECTION

<u>Contractual Services</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>
Other	3,073,788	3,509,524	4,234,041	5,057,747	5,994,430
Rental (Building)	474,142	488,366	503,017	518,107	533,651
Rental (Equipment)	1,003,554	1,053,733	1,243,405	1,417,482	1,601,754
Finance & Information Technology	1,065,238	1,855,138	2,189,063	2,495,532	3,166,119
Lab Testing	430,899	480,763	495,186	510,041	525,343
Legal	6,452	10,000	10,300	10,609	10,927
Total	\$ 6,054,073	\$ 7,397,524	\$ 8,675,011	\$ 10,009,518	\$ 11,832,223

**Guam Waterworks Authority
Schedule of Capital Projects
FY2020-2024**

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>TOTAL</u>
2010 Bond Series	3,804	-	-	-	-	-	3,804
2013 Bond Series	1,453	-	-	-	-	-	1,453
2016 Bond Series	52,563	2,703	-	-	-	-	55,266
2020 Bond Series	50,345	28,631	28,350	1,600	-	-	108,926
2022 Bond Series	-	-	-	24,209	18,664	5,900	48,773
2023 Bond Series	-	-	-	-	18,824	18,852	37,676
State Revolving Fund (SRF)	7,000	5,088	3,000	8,000	8,000	8,000	39,088
System Development Charge (SDC)	6,700	500	1,000	500	500	500	9,700
Grants	110,387	13,061	-	-	-	-	123,448
Internally Funded CIP (PAY GO)	-	15,000	15,000	20,500	21,000	24,500	96,000
Total	232,252	64,983	47,350	54,809	66,988	57,752	524,134

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>TOTAL</u>
Potable Water	100,586	28,870	14,450	27,540	38,996	27,403	237,845
Wastewater	126,703	28,003	26,350	24,069	22,242	21,119	248,486
Electrical	1,710	1,510	2,600	1,500	3,200	5,530	16,050
Miscellaneous	3,253	6,600	3,950	1,700	2,550	3,700	21,753
Total	232,252	64,983	47,350	54,809	66,988	57,752	524,134

**Guam Waterworks Authority
Schedule of Borrowing
FY2020-2024**

	<u>FY2020</u>	<u>FY2022</u>	<u>FY2023</u>	<u>Total</u>
Bond Borrowings	\$ 134,000,000	\$ 60,000,000	\$ 66,000,000	\$ 260,000,000

Guam Waterworks Authority
New Borrowing Requires Legislative Authorization
FY2020-2024

Total Amount Authorized	<u>670,000,000</u>
Less: Amount Borrowed - 2005 Series Bond	101,175,000
2010 Series Bond	118,825,000
2013 Series Bond	172,630,000
2016 Series Bond	<u>143,310,000</u>
	<u>535,940,000</u>
Amount Available for 2020 Series Bond	<u>134,060,000</u>
Amount Requires Legislative Authorization for New Bonds	
2022 Series Bond	60,000,000
2023 Series Bond	<u>66,000,000</u>
Total	<u>126,000,000</u>

**Guam Waterworks Authority
Anticipated Grant
FY2020-2024**

	<u>FY2019</u>	<u>FY2020</u>	<u>FY2021</u>	<u>FY2022</u>	<u>FY2023</u>	<u>FY2024</u>	<u>Total</u>
Grants	110,387	13,061	-	-	-	-	123,448

**Guam Waterworks Authority
Anticipated IFCIP
FY2020-2024**

	<u>FY2019</u>	<u>FY2020</u>	<u>FY2021</u>	<u>FY2022</u>	<u>FY2023</u>	<u>FY2024</u>	<u>Total</u>
Internally Funded Projects	-	15,000	15,000	20,500	21,000	24,500	96,000

5-Year Capital Improvement Program

CIP #	Project Name
PW 05-01	Ground Water Disinfection
PW 05-03	Santa Rita Springs Booster Pump Rehab Phase II
PW 05-05	"A" Series Well Transmission Line
PW 05-06	Water Booster Pump Station
PW 05-07	Meter Replacement Program
PW 05-08	Barrigada Tank Repair/Replacement
PW 05-09	Leak Detection
PW 05-10	Potable Water System Planning
PW 05-11	Implement Ground Water Rule
PW 05-12	Brigade II (Ugum Lift) BPS Upgrade
PW 05-13	Deep Well Rehabilitation
PW 05-14	New Deep Wells at Down Hard
PW 05-15	Rehabilitation of Asan Springs
PW 05-16	Master Meters
PW 09-01	Ugum Water Treatment Plant Intake
PW 09-02	Water Wells
PW 09-03	Water Distribution System Pipe Replacement and Upgrades
PW 09-04	Pressure Zone Realignment / Development 2005 Improvements
PW 09-06	Central Water Distribution System 2005 Improvements
PW 09-08	Mechanical/Electrical Equipment
PW 09-09	Water Reservoir Internal/External
PW 09-10	Water Reservoir Internal/External
PW 09-11	Water System Reservoirs 2005 Improvements
PW 11-01	Distribution System Upgrade
PW 11-02	Ugum Water Treatment Plant Reservoir
PW 12-01	Water Audit Program & Water Loss Control Plan
PW 12-02	Production Plan / Reduce Navy Purchases
PW 12-03	Hydraulic Assessment of Tanks
PW 12-04	Agana Heights & Chaot Tanks
PW 12-05	Tank Major Repair Yigo #1, Mangilao #2, Astumbo #1
PW 12-06	Tank Replacement Piti & Hyundai
PW 12-07	Assessment/Replacement of Malojoj Elevated & Yigo Elevated
PW 12-08	Public Water System Asset Inventory/ Condition Assessment
PW 12-09	Public Water System GIS & Mapping
PW 14-01	Fire Hydrant Replacement Program
MP-PW-Pipe-01	Astumbo Zone Piping
MP-PW-Pipe-02	Route 1 Astumbo Zone Piping
MP-PW-Pipe-03	Harmon Cliffline Piping to Route 1
MP-PW-Pipe-04	Hyundai Well Piping
MP-PW-Pipe-05	Kaiser Zone Looping
MP-PW-Pipe-06	Mangilao Pressure Zone Realignment
MP-PW-Pipe-07	Mataguac BPS Suction Piping
MP-PW-Pipe-08	Nimitz Lower BPS Piping
MP-PW-Pipe-09	Yigo, Santa Rosa Zone Realignment
MP-PW-Pipe-10	Miscellaneous Piping Projects

2019	2020	2021	2022	2023	2024	Total
(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 387	\$ 1,200	\$ 700	\$ 300	\$ 2,000	\$ -	\$ 4,587
\$ 1,426	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,426
\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0
\$ 100	\$ -	\$ 500	\$ -	\$ -	\$ 100	\$ 700
\$ -	\$ -	\$ 500	\$ -	\$ -	\$ -	\$ 500
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 1,568	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,568
\$ 6,140	\$ 1,538	\$ -	\$ 4,000	\$ -	\$ -	\$ 11,678
\$ 1,190	\$ 500	\$ -	\$ -	\$ -	\$ -	\$ 1,690
\$ 759	\$ 550	\$ -	\$ -	\$ -	\$ -	\$ 1,309
\$ 2,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000
\$ 200	\$ -	\$ 500	\$ 500	\$ -	\$ -	\$ 1,200
\$ 5,135	\$ 1,500	\$ 1,400	\$ -	\$ 2,000	\$ -	\$ 10,035
\$ 2,153	\$ 500	\$ 1,000	\$ 2,250	\$ 1,750	\$ 2,250	\$ 9,903
\$ 400	\$ 561	\$ -	\$ -	\$ -	\$ 650	\$ 1,611
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 636	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 636
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 57,000	\$ 10,891	\$ 1,000	\$ 1,000	\$ 1,000	\$ -	\$ 70,891
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 7,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,500
\$ 160	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 160
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 720	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 720
\$ 0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.375
\$ 6,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,500
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 1,200	\$ -	\$ -	\$ 500	\$ -	\$ 500	\$ 2,200
\$ -	\$ -	\$ -	\$ 368	\$ 4,482	\$ -	\$ 4,850
\$ -	\$ -	\$ -	\$ -	\$ 545	\$ 3,324	\$ 3,869
\$ -	\$ -	\$ -	\$ -	\$ 424	\$ -	\$ 424
\$ -	\$ 500	\$ -	\$ -	\$ -	\$ -	\$ 500
\$ -	\$ 300	\$ -	\$ -	\$ -	\$ -	\$ 300
\$ -	\$ 300	\$ -	\$ -	\$ -	\$ -	\$ 300
\$ -	\$ -	\$ 500	\$ -	\$ -	\$ -	\$ 500
\$ -	\$ -	\$ -	\$ -	\$ 121	\$ 1,469	\$ 1,590
\$ -	\$ -	\$ -	\$ 178	\$ 2,164	\$ -	\$ 2,342
\$ -	\$ 100	\$ 100	\$ 694	\$ -	\$ -	\$ 894

CIP #	Project Name
MP-PW-Pipe-11	Miscellaneous Piping Connections
MP-PW-Pipe-12	Rehabilitation and Replacement Program
MP-PW-Pipe-13	2-Inch Pipe Replacement Program
MP-PW-Pipe-14	Asbestos Cement Pipe Replacement Program
MP-PW-Pipe-15	PRV Rehab and Replacement
MP-PW-Pipe-16	Valve Exercise, Repair, and Replacement Program
MP-PW-Pipe-17	Cross Island Highway Piping
MP-PW-Tank-22	Existing Tank Inspections
MP-PW-Tank-23	Recurring Tank Inspections
MP-PW-BPS-01	Rehabilitate and Replace BPSs
MP-PW-BPS-02	Nimitz Hill Upper BPS
MP-PW-BPS-03	Route 15 BPS
MP-PW-SWTP-01	Ugum SWTP River Intake Cleaning Project
MP-PW-SWTP-02	Ugum SWTP Intake Modifications
MP-PW-SWTP-03	Ugum SWTP Reliability Improvements
MP-PW-SWTP-04	Ugum SWTP 7-Year Improvement Project
MP-PW-Well-01	Well Rehabilitation Program
MP-PW-Well-02	Well Equipment Overhaul Program
MP-PW-Well-03	Capacity Enhancement – Well Exploration Program
MP-PW-Well-04	Capacity Enhancement – Well Development and Construction Program
MP-PW-Well-05	Wellhead Protection Program
MP-PW-Well-06	Well Repair Program
MP-PW-Misc-01	South Guam Water Supply Study
MP-PW-Misc-02	Master Meter Implementation and Ongoing Meter Replacement
MP-PW-Misc-03	Hydrant Condition Assessment and Maintenance
MP-PW-Misc-04	OneGuam Program
MP-PW-Misc-05	Leak Detection Assistance
DoD-3	Rehabilitation and New NGLA Monitoring Wells

Sub-Total

Grand Total for PW Funding

2019	2020	2021	2022	2023	2024	Total
(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)
\$ -	\$ 100	\$ 100	\$ 194	\$ -	\$ -	\$ 394
\$ 1,000	\$ -	\$ 1,000	\$ 2,500	\$ 3,400	\$ 2,000	\$ 9,900
\$ 1,550	\$ 1,180	\$ 1,200	\$ 1,750	\$ 1,750	\$ 1,750	\$ 9,180
\$ -	\$ -	\$ -	\$ 3,850	\$ 3,850	\$ 3,850	\$ 11,550
\$ 500	\$ 500	\$ 1,450	\$ 1,000	\$ 1,468	\$ 1,468	\$ 6,386
\$ -	\$ 250	\$ -	\$ 250	\$ -	\$ 250	\$ 750
\$ -	\$ -	\$ 100	\$ 1,401	\$ -	\$ -	\$ 1,501
\$ 150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150
\$ -	\$ 200	\$ 200	\$ 214	\$ 214	\$ 214	\$ 1,042
\$ 209	\$ 200	\$ 150	\$ 150	\$ 150	\$ 150	\$ 1,009
\$ 48	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 86	\$ 86
\$ 380	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 380
\$ 174	\$ 1,000	\$ -	\$ -	\$ -	\$ -	\$ 1,174
\$ 150	\$ 1,000	\$ -	\$ -	\$ -	\$ -	\$ 1,150
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,168	\$ 3,168
\$ -	\$ 400	\$ 3,500	\$ 2,308	\$ 5,368	\$ 440	\$ 12,016
\$ -	\$ -	\$ -	\$ 1,000	\$ -	\$ 1,518	\$ 2,518
\$ 500	\$ -	\$ -	\$ -	\$ -	\$ 1,188	\$ 1,688
\$ -	\$ -	\$ -	\$ 379	\$ 4,622	\$ -	\$ 5,001
\$ -	\$ 350	\$ -	\$ -	\$ 660	\$ -	\$ 1,010
\$ 500	\$ 500	\$ 250	\$ 1,000	\$ 1,274	\$ 1,274	\$ 4,798
\$ -	\$ 200	\$ -	\$ -	\$ -	\$ -	\$ 200
\$ 250	\$ 250	\$ 250	\$ 734	\$ 734	\$ 734	\$ 2,952
\$ -	\$ -	\$ -	\$ 970	\$ 970	\$ 970	\$ 2,910
\$ -	\$ 50	\$ 50	\$ 50	\$ 50	\$ 50	\$ 250
\$ -	\$ 250	\$ -	\$ -	\$ -	\$ -	\$ 250
\$ -	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ 4,000
\$ 100,586	\$ 28,870	\$ 14,450	\$ 27,540	\$ 38,996	\$ 27,403	\$ 237,845
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 237,845	\$ 237,845

CIP #	Project Name
WW 05-04	Wastewater System Planning
WW 09-01	Lift station upgrades
WW 09-02	Moratorium
WW 09-06	Wastewater Collection System Repl/ Rehabilitation
WW 09-08	Facilities Plan/Design/interim for Baza Gardens STP Impr.
WW 09-10	Facilities Plan/Design/interim for Agat-Santa Rita STP Impr.
WW 09-11	WWTP Priority 1 Upgrades
WW 11-03	Baza Gardens STP Replacement
WW 11-04	Facilities Plan/Design/Interim for Umatac-Merizo STP Impr.
WW 11-08	Agat/ Santa Rita STP Replacement
WW 12-01	Northern District WWTP Primary Treatment Upgrades
WW 12-02	Bio Solids Management Plan
WW 12-03	Agana WWTP Interim Measures
WW 12-04	I&I SSES Southern
WW 12-05	I&I SSES Central
WW 12-06	I&I SSES Northern
WW 12-07	Umatac Merizo STP Replacement
WW 12-09	Wastewater Facility Back Up Power
WW 17-01	Wastewater Sewer System Expansion
WW 17-02	Northern District WWTP Secondary Treatment Upgrades
MP-WW-Pipe-01	Gravity Pipe Rehabilitation/Replacement Program
MP-WW-Pipe-02	Barrigada Pump Station Pipe Rehabilitation/Replacement
MP-WW-Pipe-03	Route 1 Piti Pipe Rehabilitation/Replacement
MP-WW-Pipe-04	Southern Link Pump Station Pipe Rehabilitation/Replacement
MP-WW-Pipe-05	Agana Heights Pipe Replacement
MP-WW-Pipe-06	Northern District Route 1 Capacity Replacement - Phase 1
MP-WW-Pipe-07	Northern District Route 1 Capacity Replacement - Phase 2
MP-WW-Pipe-08	Northern District Route 1 Capacity Replacement - Phase 3
MP-WW-Pipe-09	North Dededo Capacity Replacement - Phase 1
MP-WW-Pipe-10	North Dededo Capacity Replacement - Phase 2
MP-WW-Pipe-11	Route 16 Capacity Replacement
MP-WW-Pipe-12	Barrigada Capacity Replacement
MP-WW-Pipe-13	Mangilao Capacity Replacement
MP-WW-Pipe-14	Dededo Capacity Replacement
MP-WW-Pipe-16	Yigo Capacity Replacement
MP-WW-Pipe-17	Mamajanao Capacity Replacement
MP-WW-Pipe-18	Agat-Santa Rita Capacity Replacement - Phase 1
MP-WW-Pipe-19	Agat-Santa Rita Capacity Replacement - Phase 2
MP-WW-Pipe-20	Agat-Santa Rita Capacity Replacement - Phase 3
MP-WW-Pipe-21	Baza Gardens Capacity Replacement - Phase 1
MP-WW-Pipe-22	Baza Gardens Capacity Replacement - Phase 2
MP-WW-Pipe-23	Baza Gardens Capacity Replacement - Phase 3
MP-WW-Pipe-24	Umatac-Merizo Capacity Replacement
MP-WW-Pipe-25	Piping Near Bayside Lift Station
MP-WW-Pipe-26	Finile Drive Rehabilitation - Agat

2019	2020	2021	2022	2023	2024	Total
(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)
\$ -	\$ 150	\$ -	\$ -	\$ -	\$ -	\$ 150
\$ 1,750	\$ 1,200	\$ 1,000	\$ -	\$ 2,000	\$ 2,291	\$ 8,241
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 1,087	\$ 2,000	\$ 2,000	\$ -	\$ 2,000	\$ 2,000	\$ 9,087
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 1,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000
\$ 366	\$ -	\$ 550	\$ -	\$ -	\$ -	\$ 916
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 394	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 394
\$ 186	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 186
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 1,083	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,083
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 1,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000
\$ 52	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52
\$ -	\$ 170	\$ 2,000	\$ 5,346	\$ 750	\$ 6,186	\$ 14,452
\$ -	\$ -	\$ -	\$ 411	\$ 3,218	\$ -	\$ 3,629
\$ 340	\$ 2,000	\$ -	\$ -	\$ -	\$ -	\$ 2,340
\$ 657	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 657
\$ -	\$ -	\$ -	\$ 169	\$ 2,500	\$ -	\$ 2,669
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,169	\$ 1,169
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 571	\$ 571
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47	\$ 47
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ 400	\$ 1,300	\$ 2,574	\$ -	\$ -	\$ 4,274
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 320	\$ 320
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 207	\$ 207
\$ -	\$ -	\$ 2,000	\$ -	\$ 250	\$ -	\$ 2,250
\$ 63	\$ 750	\$ -	\$ -	\$ -	\$ -	\$ 813

CIP #	Project Name
MP-WW-Pipe-27	Septic/Cesspool System Reduction Program
MP-WW-MH-01	Manhole Rehabilitation Program
MP-WW-FM-01	Force Main Rehabilitation/Replacement Program
MP-WW-FM-02	Replace Yigo Lift Station Force Main
MP-WW-FM-03	Route 1 Asan Force Main Rehabilitation/Replacement
MP-WW-FM-04	Hagåtña WWTP Force Main Rehabilitation/Replacement
MP-WW-Pump-01	Lift Station Rehabilitation/Replacement Program
MP-WW-Pump-02	Tumon Basin - Fujita Lift Station Analysis
MP-WW-Pump-03	Replacement of Former Navy Pump Station (Donut Hole)
MP-WW-WWTP-01	Hagåtña WWTP Primary Treatment Repair/Rehabilitation Program
MP-WW-WWTP-02	Hagåtña WWTP Secondary Treatment Upgrade
MP-WW-WWTP-03	Inarajan WWTP Repair/Rehabilitation Program
MP-WW-WWTP-04	Pago Socio WWTP Pump Station Conversion
MP-WW-WWTP-05	Umatac-Merizo WWTP Repair/Rehabilitation Program
MP-WW-WWTP-06	Agat-Santa Rita WWTP Repair/Rehabilitation Program
MP-WW-WWTP-07	Baza Gardens Cross Island Pipeline - Preliminary Treatment Equipment Repair and Rehabilitation Program
MP-WW-WWTP-08	Northern District WWTP Completion
MP-WW-WWTP-09	Ocean Outfall Inspection Program
MP-WW-Misc-01A	Update Wastewater Collection System Model (Major Update)
MP-WW-Misc-01B	Update Wastewater Collection System Model (Continued)
MP-WW-Misc-02	II and SSES Assessments
MP-WW-Misc-03	Miscellaneous Wastewater Improvements
MP-WW-Misc-04	Fats, Oils, and Grease Study
DoD-01	NDWWTP Secondary Treatment Capacity 12MGD
DoD-02	Northern Systems Wastewater System

Sub-Total

Grand Total for WW Funding

2019	2020	2021	2022	2023	2024	Total
(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)
\$ -	\$ -	\$ -	\$ 350	\$ 3,000	\$ 5,238	\$ 8,588
\$ -	\$ 350	\$ -	\$ 350	\$ -	\$ 350	\$ 1,050
\$ -	\$ -	\$ 100	\$ 1,458	\$ -	\$ 120	\$ 1,678
\$ -	\$ -	\$ 200	\$ 1,829	\$ -	\$ -	\$ 2,029
\$ 2,124	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,124
\$ 5,000	\$ 1,689	\$ -	\$ -	\$ -	\$ -	\$ 6,689
\$ -	\$ 2,120	\$ 6,500	\$ 982	\$ 6,124	\$ 2,420	\$ 18,146
\$ 1,000	\$ 6,923	\$ 3,000	\$ -	\$ -	\$ -	\$ 10,923
\$ 100	\$ 1,201	\$ -	\$ -	\$ -	\$ -	\$ 1,301
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ 1,700	\$ 1,000	\$ -	\$ 2,700
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ 7,500	\$ 7,800	\$ -	\$ -	\$ 15,300
\$ -	\$ 150	\$ -	\$ -	\$ -	\$ -	\$ 150
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ 100	\$ -	\$ 100	\$ -	\$ 200	\$ 400
\$ -	\$ 150	\$ -	\$ -	\$ 400	\$ -	\$ 550
\$ 500	\$ -	\$ 200	\$ 1,000	\$ 1,000	\$ -	\$ 2,700
\$ -	\$ 150	\$ -	\$ -	\$ -	\$ -	\$ 150
\$ 110,000	\$ 2,500	\$ -	\$ -	\$ -	\$ -	\$ 112,500
\$ -	\$ 6,000	\$ -	\$ -	\$ -	\$ -	\$ 6,000
\$ 126,703	\$ 28,003	\$ 26,350	\$ 24,069	\$ 22,242	\$ 21,119	\$ 248,486
					\$ 248,486	

CIP #	Project Name
EE 05-02	SCADA Pilot Project
EE 09-01	Wastewater Pumping Station Electrical Upgrade
EE 09-02	Electrical Upgrade - Water Wells
EE 09-03	Electrical Upgrade - Water Booster
EE 09-04	Electrical Upgrade -Water Booster
EE 09-05	Electrical Upgrade - Other Water
EE 09-07	SCADA Improvements – Phase 2
EE 09-08	SCADA Improvements – Phase 3
EE 09-09	SCADA Improvements – Phase 4
MP-Gen-EE-01	SCADA Implementation Phase A2 – Initial Project Completion
MP-Gen-EE-02	SCADA Implementation Phase B – Additional Sites
MP-Gen-EE-03	SCADA Implementation Phase C – Additional Instruments
MP-Gen-EE-04	SCADA System Improvement Program

Sub-Total

Grand Total for EE Funding

2019	2020	2021	2022	2023	2024	Total
(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ 90	\$ -	\$ -	\$ -	\$ -	\$ 90
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ 150	\$ -	\$ -	\$ -	\$ -	\$ 150
\$ -	\$ 100	\$ -	\$ -	\$ -	\$ -	\$ 100
\$ -	\$ 45	\$ -	\$ -	\$ -	\$ -	\$ 45
\$ 275	\$ 125	\$ -	\$ -	\$ -	\$ 2,000	\$ 2,400
\$ 434	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 434
\$ 1,000	\$ 1,000	\$ 2,600	\$ 1,500	\$ 2,600	\$ 2,600	\$ 11,300
\$ -	\$ -	\$ -	\$ -	\$ 600	\$ 600	\$ 1,200
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ 330	\$ 330
\$ 1,710	\$ 1,510	\$ 2,600	\$ 1,500	\$ 3,200	\$ 5,530	\$ 16,050
\$						16,050

CIP #	Project Name
MC 05-01	Laboratory Modernization
MC 05-02	Land Survey
MC 09-01	General Plant Improvements / Water
MC 15-01	Information Technology Intergration Improvements
MP-Gen-Misc-01	GWA Systems Planning
MP-Gen-Misc-02A	WRMP Update (Comprehensive Update)
MP-Gen-Misc-02B	WRMP Update (Interim Update)
MP-Gen-Misc-03	Surveying and Property Delineation
MP-Gen-Misc-04	Information Technology Improvements
MP-Gen-Misc-05	GWA Infrastructure Improvements
MP-Gen-Misc-06	GPWA Fleet Maintenance Facility
MP-Gen-Misc-07	Mobile Equipment Replacement Program
MP-Gen-Misc-08	General Plant Improvements
MP-Gen-Misc-09	Security and Resilience Program

Sub-Total

Grand Total for MC Funding

2019	2020	2021	2022	2023	2024	Total
(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)	(x1000)
\$ 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 47	\$ -	\$ 100	\$ 500	\$ 800	\$ 1,000	\$ 2,447
\$ 256	\$ -	\$ 100	\$ 500	\$ 500	\$ 500	\$ 1,856
\$ 500	\$ 200	\$ 500	\$ 100	\$ 250	\$ 1,000	\$ 2,550
\$ -	\$ -	\$ -	\$ 100	\$ -	\$ -	\$ 100
\$ -	\$ 200	\$ -	\$ -	\$ -	\$ -	\$ 200
\$ 250	\$ -	\$ 250	\$ -	\$ 250	\$ -	\$ 750
\$ 200	\$ 5,200	\$ 200	\$ 100	\$ 100	\$ 200	\$ 6,000
\$ 500	\$ -	\$ 2,000	\$ -	\$ 250	\$ -	\$ 2,750
\$ 500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500
\$ 400	\$ 400	\$ 200	\$ 100	\$ 100	\$ 400	\$ 1,600
\$ 500	\$ 500	\$ 500	\$ 200	\$ 200	\$ 500	\$ 2,400
\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 600
\$ 3,253	\$ 6,600	\$ 3,950	\$ 1,700	\$ 2,550	\$ 3,700	\$ 21,753
						\$ 21,753

Total \$ 524,134