### BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

IN RE: PETITION FOR APPROVAL OF
GWA'S THIRD FIVE-YEAR
FINANCIAL PLAN.

STIPULATIONS OF THE GUAM
WATERWORKS AUTHORITY AND
GEORGETOWN CONSULTING GROUP
ON BEHALF OF THE PUBLIC UTILITY
COMMISSION OF GUAM

## PROPOSED STIPULATION

The GUAM WATERWORKS AUTHORITY (hereinafter "GWA") and GEORGETOWN CONSULTING GROUP, INC. (hereinafter "GCG") (hereinafter both jointly referred to as the "Parties"), hereby agree and stipulate to recommend the following to the GUAM PUBLIC UTILITIES COMMISSION (hereinafter "PUC") for approval in Docket No. 19-08:

#### **PREAMBLE**

Whereas GWA published notice in a local paper of its intent to request PUC approval of water and sewer rate increases above existing tariffs on April 6, 2019; and

Whereas GWA conducted no less than seven (7) public hearings over the subsequent weeks, provided notice in the May 2019 customer billing cycle, and gave notice in the paper on June 6, 2019; and

Whereas the Guam Consolidated Commission on Utilities (CCU) under its budgetary authority in Public Law 26-76, by Resolution No. 36-FY 2019, approved filing of GWA's Five-Year Financial Plan on June 5, 2019; and

Whereas GWA petitioned the PUC on July 6, 2019 for approval of its Five-Year Financial Plan and rate relief and submitted a complete application for rate relief in conformance with applicable PUC rules (Part 4: Application for Rate Relief, Rules 19-21); and

Whereas, GCG was authorized by the PUC to serve as Technical Consultants on April 23, 2019 in Docket No. 19-08 to review GWA's Petition and GCG reviewed GWA's Petition and rate filing information; and

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Whereas, the PUC has indicated that it will schedule a public meeting in February 2020 to hear testimony from and receive a briefing on the recommended stipulation between GWA and GCG concerning GWA's Five-Year Financial Plan and rate application; and

Whereas, the Parties jointly recommend that a series of studies be undertaken to provide the PUC critical information upon which to consider adjustments to its FY 2020 – 2024 financial plan; and

Whereas, the Parties jointly recommend that the annual rate review process before the PUC be omitted in FY 2021 and be modified in FY 2022 to provide for a Comprehensive Review and Update of GWA's Financial Plan taking into account the special studies agreed upon in this Stipulation. The Comprehensive Review and Update of GWA's Financial Plan will be used to adjust rates for FY 2022 – FY 2024.

NOW THEREFORE, the Parties Agree to the following Stipulated Provisions which it recommends for approval by the PUC:

## STIPULATED PROVISIONS

I. Analytical Studies to be Undertaken to Support the FY 2022 Comprehensive Review and Update of GWA's Financial Plan and subsequent annual rate review processes.

The following studies must be completed by GWA and filed with the PUC no later than March 31, 2021 for consideration by the PUC in support of a Comprehensive Review and Update of GWA's Financial Plan (as described further below). The studies will be subject to appropriate review and analysis by each Party. The studies include:

- 1. Demand Forecasting GWA must prepare a comprehensive econometric forecast of water sale volumes (kGal) by customer class using a methodology similar to the method used by the Guam Power Authority (GPA) to prepare its electricity sales forecast. GWA may elect to work with GPA in producing this forecast.
  - a. The forecast will consider, as deemed appropriate, variables such as: weather, measures of economic activity, population, construction, water appliance efficiency and conservation measures, tourism and other variables considered relevant.

- b. GWA will consider, as deemed appropriate, modeling the hotel class by individual customer for the largest 10 20 customers and meeting with local hotel facility managers about plans such as expansion and water conservation measures and equipment that they plan to install within the next five (5) years. GWA will consider, as deemed appropriate, the relationship between hotel water consumption, tourist arrivals and room occupancy.
- c. Related projections of GWA water production will be prepared specifically to include consideration of demonstrated impacts of GWA's water loss management initiatives.
- d. The study must be completed no later than March 31, 2021 for consideration by the PUC in the FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan.
- 2. Water Loss Reduction GWA will advance and expand water loss reduction measures including accelerating planned water line replacements, implementation of district metering areas and other high priority measures.
  - a. GWA will undertake a comprehensive systemwide water loss reduction program designed to provide meaningful reductions in annual water loss volumes (kGal) deemed to be economically justifiable. The Parties agree that any water loss reduction project shown in the analytical study to have a benefit-cost ratio above 1.25 will be accelerated to the extent practicable.
  - b. GWA will continue its ongoing loss reduction field work with Water Systems Optimization, Inc. (WSO), or other experts, for the purpose of identifying implementable loss reduction measures and appropriate loss reduction targets for its water system. GWA will evaluate calendar year 2020 outcomes of water loss reduction efforts in district metering areas for consideration in making adjustments to its FY 2022 2024 water production and variable expense estimates.
  - c. GWA will identify water loss reduction projects and the corresponding benefit-cost ratio associated with each project and will rank each water loss reduction project with a benefit-cost ratio above 1.0 from the highest to the lowest. Documentation of water loss reductions achieved for the period and a comprehensive five (5) year (FY 2022 2026) water loss reduction plan (inclusive of annual loss reduction targets using appropriate and industry standard metrics)

will be completed and submitted no later than March 31, 2021 for consideration by the PUC in the FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan.

- d. Annually, GWA will provide to the PUC information on results achieved, allowing the PUC to actively monitor and independently verify GWA's progress in water system loss reduction and its undertaking of the water loss reduction projects stipulated to in this proceeding. The annual report will be prepared in a form mutually agreeable by the Parties. These annual updates will include the identification of potential barriers to achievement of loss reduction targets and identification of any corrective actions required to ensure the targets are achieved.
- 3. Cost of Service/Rate Design GWA must conduct a water and wastewater cost of service and rate design (COS) study that independently examines the allocation of costs to all customer classes of both the water and wastewater systems employing analysis methodologies as outlined in the American Water Works Association's (AWWA) and Water Environment Federation's (WEF) manuals of standard practice.<sup>1</sup>
  - a. The COS study will examine GWA's current allocation of costs to its various water and wastewater customer classifications and present alternatives to GWA's current rate designs to support low-income affordability and water conservation objectives. The study must be completed and submitted to the PUC to support the FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan.
- 4. Affordability GWA will prepare an evaluation of household water affordability using measures as outlined in the AWWA/NACWA<sup>2</sup>/WEF report submitted to EPA in May 2019,<sup>3</sup> and will prepare Financial Capability Assessment (FCA) information using its recommendations.
  - In conjunction with GWA's COS study, GWA will prepare an evaluation of options to address low-income water affordability challenges through both the

<sup>&</sup>lt;sup>1</sup> AWWA Manual of Practice (M1), <u>Principles of Water Rates</u>, Fees and <u>Charges</u>, 7<sup>th</sup> Edition and WEF Manual of Practice (No. 27), <u>Financing and Charges for Wastewater Systems</u>, 4<sup>th</sup> Edition.

<sup>&</sup>lt;sup>2</sup> National Association of Clean Water Agencies (NACWA).

<sup>&</sup>lt;sup>3</sup> "Developing a Framework for Household Affordability and Financial Capability Assessment in the Water Sector," prepared by Raftelis, Galardi Rothstein Group, and Corona Consulting for the American Water Works Association, National Association of Clean Water Agencies, and Water Environment Federation, completed in April 2019 and submitted to US EPA in May 2019.

- design of a Customer Assistance Program and revision of its current residential lifeline rate structure. The study will consider alternative low-income Customer Assistance Programs (CAP) and the financing of such programs (intra- and interclass subsidies) as well as rate design alternatives.
- b. The Parties agree that reasonable efforts will be made to provide for water rates that result in an improvement in the affordability of basic water service and consider cost impacts of all Guam utilities on low-income customers. The study will be completed and submitted no later than March 31, 2021 to the PUC to support the FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan.
- 5. Capital Financing GWA agrees to pursue legislative and other actions necessary, including working with the PUC and the Guam Economic Development Authority (GEDA) and appropriate financial advisors to enable access to certain financing tools, and to modify selected financial policies. GCG agrees to support GWA's actions before the PUC in pursuing the following enhancements to its financing vehicles:
  - a. GWA agrees to investigate the availability and relative costs of alternative debt instruments such as letters-of-credit or surety bonds to fund debt service reserves in lieu of bond financing required reserves through debt issuance proceeds. If determined to be viable and economical, GWA agrees to recommend to the CCU, Legislature and PUC the approval of this option for meeting debt service reserve fund requirements delineated in GWA's indenture.
  - b. GWA agrees to investigate the availability and relative costs of the use of commercial paper or lines of credit to finance its ongoing capital construction program following issuance of its Series 2020 revenue bonds. If determined to be viable and economical, GWA agrees to seek necessary approvals to allow GWA the option to employ commercial paper for prospective capital financing.
  - c. These activities will be completed a timely manner to allow adjustment to FY 2022 2024 rates in conjunction with the FY 2022 Comprehensive Review and Update of GWA's Financial Plan. Given the uncertainty of both the availability and costs of these alternative financing options, the Parties agree that the stipulated FY 2020 and FY 2021 rates will not assume the availability of these instruments.

- 6. Capitalized Labor GWA agrees to undertake a review of its current capitalized labor expense protocol to be completed no later than March 31, 2021 to support the FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan.
- 7. Cesspool/Septic Tank Elimination GWA agrees to investigate options to enhance compliance with Title 10, Chapter 48, Toilet Facilities and Sewage Disposal, potentially including legislatively approved transfer of regulatory authority to GWA. GWA will complete its septic tank / cesspool review and analysis, and provide its recommendations to the PUC for review and consideration no later than March 31, 2021.
  - a. GWA will identify all residential facilities with 200 ft. of an existing GWA sanitary sewer line or 1000 ft. of a GWA water well that require specific action steps to be taken by GWA in accordance with Chapter 48. GWA will estimate the potential consumer and GWA investments required, identify potential sources of funding these investments and estimate GWA revenue impacts and expenses of implementation.
  - b. GWA will consider alternative funding mechanisms to assist consumers in connecting to the sewer system, including use of the SDC fund to increase the funds available in the sewer connection revolving fund. GWA will evaluate potential obstacles, if any, to using the SDC fund and outline potential solutions. Other funding mechanisms may be explored as well including private sector financing.
  - c. GWA agrees to notify the CCU and PUC on a timely basis if potential barriers, including funding and procurement issues, may preclude completion of the above-listed studies by the completion dates scheduled and to request necessary modifications and approval of any changes.
- 8 FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan -The review will require GWA to supplement the filings of the studies enumerated below with reporting to the PUC by May 1, 2021 on:
  - a. Forecasted (per the stipulated FY 2020 2024 rate plan) versus actual performance by the categories of GWA revenues and expense included in GWA's Five-Year Financial Plan filed with the PUC on July 6, 2019. This variance analysis reporting will address and explain, through narrative and supporting analyses, reasons for variances between forecasted and actual (FY 2020 audited data and FY2021 YTD

data) performance greater than 5 percent. PUC may ask for further explanation of other documented variances throughout the review process.

- b. GWA will submit proposed updates to its Five-Year Financial Plan for FY 2022 2024 and supporting rate model based in part on the findings and recommendations of the studies enumerated above. GWA will provide documentation of how findings of each study were incorporated into GWA's revised financial plan by major categories of GWA revenues and expense.
- c. GWA will provide documentation including, but not limited to a petition, reports, memos, spreadsheets and workpapers outlining how the findings and recommendations of the GWA demand forecast, water loss reduction, cost of service, affordability, capital financing, and other analyses are proposed to be incorporated into the FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan.

The FY 2022 Comprehensive Review and Update to GWA's Five-year Financial Plan contemplates an enhanced annual rate review process and specifically does not constitute a new GWA rate application. GWA will provide both the CCU and PUC detailed submissions and briefings on these submissions and GWA rate model adjustments by May 1, 2021. As noted below, GWA will respond to Requests for Information or PUC submittals regarding the studies and GWA rate model adjustments on a timely basis throughout the review process. PUC action on the FY 2022 Comprehensive Review and Update to GWA's Five-year Financial Plan is anticipated by September 2021. The review process is recommended by the Parties to provide for full and appropriate consideration of the studies that GWA has agreed to complete by March 31, 2021.

## II. GWA's FY 2020 - FY 2024 Financial Plan

- 1. FY 2020 2021 Base Water Rates By this Stipulation, the Parties agree to the proforma results of operations contained in the detailed Attachment A for the period FY 2020 2021 that memorializes the details of projections that the Parties have agreed to recommend to the PUC for its review and approval.
- 2. FY 2020 FY 2021 Base Rate Increase Implementation The Parties agree to the stipulated water and wastewater base rate increases of 5.0 % in FY2020 and 5.0% in FY2021. The rate increase for FY 2020 will take place upon the PUC issuing a final order in Docket No.

19-08 and for FY 2021 will take effect on October 1, 2020. There will be no change to the "lifeline" rate for FY2020 and FY2021.

- 3. DSCR The Parties acknowledge that the projected debt service coverage ratio (DSCR) for FY2020-2021 is below the target of 1.75x the PUC has set to be achieved for ratemaking purposes.
- 4. Policy Changes The Parties will use best efforts to secure revisions to CCU and PUC policies related to minimum debt service coverage levels:
  - a. Revision of the CCU policy (adopted by Resolution No. 21-FY2014) that calls for funding of a Working Capital and Debt Service Reserve that "serves to establish a Cash Reserve for supplementing Net Revenues for the sole purpose of meeting the PUC's currently established ADSCR [Aggregate Debt Service Coverage Ratio] requirement that Net Revenues will be 175%- or 1.75 times annual debt service." The revision would provide for meeting of a PUC minimum ADSCR target based on a calculation consistent with GWA's indenture (and common municipal finance practice) that does not supplement Net Revenues with such reserves.
  - b. Revision and clarification of the PUC's order (Regulatory Review of GWA Interim Financial Plan Under Federal Court Order in Civil Case 02-35 Docket 04-01: FY 2005 Rate Order) that a minimum 1.75x coverage ratio is established for purposes of setting just and reasonable rates for GWA (Paragraph 8, p. 5).
  - c. The Parties to this stipulation agree to support the approval of both policy changes inclusive of a minimum 1.40x debt service coverage ratio. It is further recommended that as part of CCU and PUC's consideration of alternative debt financing instruments, the PUC debt service coverage policy be reevaluated based on references to credit rating agency medians of comparable and favorably rated debt issuers and consideration of customer affordability of utility services.
- 5. kGal Water Sales For purposes of the FY 2020 2021 revenue requirements, the Parties stipulate that the annual water sales volumes by customer class will not be adjusted from GWA's original July 6, 2019 rate application. Adjustments may be implemented beginning in FY 2022 based on the results of the supporting "Analytical Studies" enumerated above that will be incorporated into the FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan.

- 6. Water Loss Reduction Program The Parties stipulate GWA will be deploying an aggressive water loss reduction program. For purposes of FY 2020 2021, GWA's water production forecast will be adjusted to reflect anticipated reductions in water losses due to GWA's expansion and acceleration of water loss reduction measures:
  - a. FY 2020 production volumes will be adjusted based on a projected reduction of non-revenue water by 2.00% of actual FY 2019 production (adjusted for partial year implementation, which implementation will begin no later than March 1, 2020).
  - b. FY 2021 production volumes will be adjusted based on a projected non-revenue water reduction of an additional 2.75% of actual FY 2020 production for a cumulative total of 4.75% (adjusted for FY 2020 partial year implementation).
  - c. GWA will include planned water loss reduction project spending for FY 2020 2021 of no less than \$14 million. GWA will consider the efficacy of alternative project delivery options to effect acceleration of water loss reduction project implementation.
- 7. Labor/Benefits Expenses The Parties stipulate to the GCG adjustments for FY 2020 2021 of Personnel Salary and Benefits expenses. Projected annual expense reductions are:

FY 2020	FY 2021
\$2,248,207	\$1,958,153

8. Variable Operations and Maintenance Expenses – The Parties stipulate to the GCG adjustments for FY 2020-2021 of certain variable (e.g., water production dependent) expenses These adjustments relate to water purchases, salaries and benefits, contractual expenses, and Administrative and General expenses (inclusive of related power expense impacts) and were determined by applying unit savings estimated by GCG to the volume reductions outlined herein. Projected annual expense reductions are:

FY 2020	FY 2021
\$2,030,877	\$3,703,629

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- 9. Capital and Financing Programs The Parties have agreed to the following for purposes of development of GWA's Five-Year Financial Plan:
  - a. GWA's financial plan will be based on a projected fund balance target (as shown in Attachment A) of not less than \$3 million and a debt service coverage ratio<sup>4</sup> of 1.40x 1.50x.
  - b. GWA's \$134 million Series 2020 bond issue will be structured with a term of thirty (30) years, two (2) years of capitalized interest, and assumed to be issued at an average coupon rate of five percent (5%) with costs of issuance equal to two percent (2%) of par. For the Series 2020 bonds principal payments will be deferred for a five (5) year period.
  - c. GWA will re-program all existing non-committed bond fund balances (from its past three issues) in an amount of no less than \$2.7 million to its capital program (see Attachment B), subject to applicable PUC review procedures and will provide a priority consideration to funding with reprogramed funds non-revenue water projects.

## III. Potential Capital and Financing Program Revisions

Based on outcomes of the efforts outlined in item number 5 above to be completed by March 31, 2021, the Parties stipulate to the following (which may result in adjustments to GWA's Financial Plan):

- a. GWA's targeted debt service coverage ratio<sup>5</sup> of 1.40x 1.50x may be adjusted based on evaluation of potential policy changes enumerated in 4 (c) above.
- b. Use of up to \$50 million in commercial paper or lines-of-credit, to the extent allowed by GWA enabling legislation and if cost-effective, may be used to augment GWA's ongoing construction capital requirements with available capital funds.
- c. GWA will seek to lower the financing cost associated with the capital funding of debt service reserve funds for subsequent borrowings by using letters-of-credit or surety bonds as allowed by GWA enabling legislation.

<sup>&</sup>lt;sup>4</sup> As traditionally calculated as the ratio of net operating expenses divided by scheduled debt service payments per GWA's bond indenture (without adjustment for debt service reserve funds).

<sup>&</sup>lt;sup>5</sup> As traditionally calculated as the ratio of net operating expenses divided by scheduled debt service payments per GWA's bond indenture (without adjustment for debt service reserve funds).

## IV. Water Loss Reduction Targets

The Parties stipulate that the water loss reduction targets for the water system will be based on the work of WSO and GWA who will prioritize each water loss reduction project based on its respective benefit-cost ratio. The Parties agree that the water loss reduction targets should reflect an aggressive approach to water loss management with the objective to have GWA's water loss rates compare favorably with established industry benchmarks as soon as reasonably possible within a twenty (20) year period. The capital investment program will be reprogramed as necessary starting with projects having the highest benefit-cost ratio to achieve these targets. Further:

- a. GWA will use its best efforts to enter into a zero-cost "water exchange" program with Navy. Absent the ability to enter into a zero-cost exchange program, GWA will prioritize reducing the amount of water purchased from the US Navy or undertake the necessary construction to eliminate Navy water (if supported by a large benefit-cost ratio supporting such construction).
- b. GWA will ensure the new SCADA system is designed to assist GWA in the identification and detection of water losses and the prioritization and targeting of water loss projects.
- c. For the period FY2020-2024 GWA's water loss reduction targets will be as determined through the study to be completed by March 31, 2021 with designated benchmarks to reduce water losses by 20% as compared to its 2019 water loss level and to the median level of comparable water utilities in the US Mainland in less than twenty (20) years from 2019.

## V. Consent Decree:

Upon completion of substantive Consent Decree negotiations with USEPA (and lifting of confidentiality restrictions), GWA will provide a detailed briefing on the proposed decree to the PUC. This briefing will outline, among other matters, potential GWA spending commitments that will impact future rate revenue requirements and to provide a comparison to what was projected in GWA's Five-Year Financial Plan.

## VI. Requirements of 12 GCA § 12102.2. (d) Staffing Study

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The Parties acknowledge that the PUC, pursuant to 12 GCA 12102.2 (d), Proposed Public Utility Rate Increases, is required to conduct studies comparing the staffing pattern and manpower levels of GWA and other utilities under their purview to the staffing patterns and manpower levels of at least four (4) mainland utilities providing similar services with a comparable number of customers. The Parties acknowledge that the PUC must, in determining approval of any proposed rate increase, take into account the results of such staffing studies.

- a. GCG conducted a staffing study pursuant to the statute comparing GWA to a large cross-section of water utilities. The results indicate GWA is an outlier when compared directly to this cross-section of mainland water/wastewater utilities participating in the annual AWWA Benchmarking Review and has a greater manpower level than participating utilities.
- b. GCG does not believe the data in the AWWA Benchmarking Review is directly comparable to GWA as many mainland water systems included in the review are part of city or county governments wherein the utility is provided services such as IT, procurement, HR, finance and other services from the county or municipal government.
- c. Any realistic comparison will be difficult given the unique nature of the Guam water system due in part to the inheritance of the legacy systems of the US Navy and the Public Utility Agency of Guam systems. For this reason, we do not believe it appropriate that the staffing study performed be used by the PUC at this time.
- d. The Parties recommends that the Analytical Studies to be Undertaken to Support the FY 2022 Comprehensive Review and Update of GWA's Financial Plan include a more detailed staffing study by the PUC taking into account many of the issues that have surfaced such as: elasticity/affordability/age of the system and resulting system losses that may enable a future smaller and efficient system. This study should be completed by March 31, 2021.
- e. GCG recommends no adjustment to GWA staffing for FY 2020 FY 2021 is appropriate at this time.

### VII. Procedural Provisions

The FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan will be an abbreviated proceeding designed to take into consideration all the required studies that are to be submitted no later than March 31 of 2021 along with any legislative authorization or

statutory changes GWA has pursued in furtherance of this stipulation. GWA will file its proposed FY 2022 Comprehensive Review and Update to its Five-Year Financial Plan for PUC review no later than May 1, 2021 – giving the PUC ample opportunity for RFI's and responses to be exchanged prior to the September PUC meeting for approval.

# SO STIPULATED this 17th day of January 2020.

### **GUAM WATERWORKS AUTHORITY**

KELLY O. CLARK
GWA GENERAL COUNSEL

# GEORGETOWN CONSULTING GROUP, INC.

BY: Madan

JAMSHED MADAN

ATTACHMENTS A & B



#### PROPOSED RATE PLAN 2020 - 2024

	Projection									
_		2020		2021		2022		2023		2024
Basic Charge -Water		5.00%		5.00%		5.50%		3.00%		2.50%
Lifeline Increase		0.00%		0.00%		0.00%		0.00%		2.50%
Non-Lifeline Increase		5.00%		5.00%		5.50%		3.00%		2.50%
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	_	120,007,713		125,418,435	_	132,046,975		135,575,856	_	139,154,045
Water Revenues	\$	73,925,751	\$	77,436,674	\$	81,489,096	\$	83,856,280	\$	86,029,337
Wastewater Revenues		42,401,836		44,115,188		46,589,441		47,746,340		48,989,606
Legislative Surcharge		3,680,126		3,866,573		3,968,438		3,973,236		4,135,102
Other Revenues System Development Charge		431,932 914,964		430,737 929,304		433,741 832,509		432,137 892,259		432,205 884,691
System Development Charge		914,964		929,304		632,509		692,259		004,091
Total Operating Revenues		121,354,609		126,778,476		133,313,225		136,900,252		140,470,940
O & M EXPENSES										
Power Purchases		13,360,490		12,985,578		12,437,383		11,464,591		10,899,476
Water Purchases		9,723,387		10,123,306		10,377,505		10,700,149		11,096,715
		23,083,877		23,108,884		22,814,888		22,164,741		21,996,191
Salaries and Benefits Intentionally Left Blank		24,627,194		26,814,544		28,847,199		30,089,804		31,344,171
Administrative and General Expenses Intentionally Left Blank		12,020,482		12,262,728		12,155,884		12,237,962		12,523,694
Depreciation Expense Intentionally Left Blank		21,962,670		22,271,032		22,300,621		22,648,171		24,038,420
Contractual Expense Intentionally Left Blank		6,025,390		7,305,994		7,222,396		7,704,660		8,339,540
Retiree Supplemental Annuities/Health care costs		3,763,479		3,933,180		4,112,018		4,300,483		4,499,094
Total Operating Expenses		91,483,090		95,696,362		97,453,007		99,145,822		102,741,110
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Earnings (Loss) from Operations		29,871,519		31,082,114		35,860,218		37,754,430		37,729,830
Interest Income-Bond 2013,2014 Refunding,2016,2017 Refund		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 Refur Interest Expense-BOG		(32,105,188) (67,345)		(31,659,950)		(31,189,350)		(34,944,625)		(34,425,013)
Interest ExpenseCommercial Paper AFUDC		-		-		280,000		-		340,000
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)		38,276,987		40,426,908		39,316,739		11,846,108		12,716,771
INCREASE (DECREASE) in Capital		38,276,987		40,426,908		39,316,739		11,846,108		12,716,771
BOND DEBT SERVICE		34,175,188		34,229,950		40,934,350		40,929,625		40,935,013



#### PROPOSED RATE PLAN 2020 - 2024

	Projection								
<u>-</u>	2020	2021	2022	2023	2024				
DEBT SERVICE COVERAGE CALCULATION - Section 6.12									
Earnings (Loss) from Operations	29,871,519	31,082,114	35.860.218	37,754,430	37,729,830				
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	51,780,674	53,360,999	58,273,942	60,520,445	61,949,666				
Debt Service Coverage (1.25X) - Section 6.12	1.52	1.56	1.42	1.48	1.51				
DEBT SERVICE COVERAGE CALCULATION - PUC Debt Ratio Balance Available for Debt Service Transfer - Reserve for O & M Transfer - Reserve for Debt Service 2017 Refunding bond savings	51,780,674	53,360,999	58,273,942	60,520,445	61,949,666				
Available for Debt Service -Reserve for Debt Service	11,217,733	11,217,733	11,217,733	11,217,733	11,217,733				
Balance Available for Debt Service - PUC	62,998,408	64,578,733	69,491,677	71,738,178	73,167,399				
Debt Service Coverage (1.75X) - PUC	1.84	1.89	1.70	1.75	1.79				
Requested	51,780,674	53,360,999	58,273,942	60,520,445	61,949,666				
Amount at 1.4	\$ 47,845,263 \$	47,921,930	\$ 57,308,090 \$	\$ 57,301,475 \$	57,309,018				
Reduced Revenues	3,935,412	5,439,069	965,852	3,218,970	4,640,649				
% of revenues	3.3%	4.3%	0.7%	2.4%	3.3%				
CASH FLOW STATEMENT									
Net Income (Loss)	38,276,987	40,426,908	39,316,739	11,846,108	12,716,771				
Depreciation & Amortization AFUDC	22,366,310	22,547,962	22,598,670	22,974,378	24,338,815				
Principal Payments - Bonds	(8,770,000)	(9,270,000)	(9,745,000)	(10,235,000)	(10,760,000)				
Working Capital Change (Increase)Decrease	(878,321)	(542,131)	(932,330)	(625,422)	(319,479)				
Principal Payments-BOG	(2,780,552)	-	-	-	-				
Transfer to Trust	<del>.</del>								
Deferred outflows from pension	344,114	269,263	306,689	287,976	297,332				
Gross Bond Proceeds Deposit to Bond Construction Fund	134,000,000 (108,925,581)	-		85,000,000 (69,094,585)	-				
Deposit to CAP Interest Fund	(13,400,000)	-		(8,500,000)	-				
Deposit to Och Interest Fund	(\$8,994,419)	-		(\$5,705,415)	-				
Cost of Issuance/Underwriter Discount	(2,680,000)	-		(1,700,000)	-				
Loss on Defeasance Bond/Amortization of Disct,	,	070 000	298.049		200 205				
Premium&IssuanceCost	403,640	276,930	298,049	326,206	300,395				
Revenue Funded CAPEX	-	-	-	-	-				
Bond Reserve Requirement	-	-	-	-	(449,399)				
System Development Charge	500,000	500,000	500,000	500,000	500,000				
Working Capital Reserve for CAPEX/PAYGO	(17,000,000)	(12,400,000)	(17,500,000)	(17,500,000)	(15,000,000)				
Working Capital Reserve for O & M Working Capital Reserve for Debt Service		(8,000,000)							
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	(30,730,130)	4,250,000	4,250,000				
Prior Year Adjustment & Loss on Asset Disposal/Invty writedov	-	-	-	-,200,000	-,200,000				
Cash Surplus (Deficit)	(570,680)	776,075	1,412,686	3,824,247	7,874,436				
Beginning Balance	4,962,086	4,391,406	5,167,481	6,580,167	10,404,414				
Ending Balance	\$ 4,391,406 \$	5,167,481	\$ 6,580,167	\$ 10,404,414	18,278,850				

				FY2020	FY2021	FY2022	FY2023	FY2024	Subtotal By Project
<b>GWA Cat</b>	GCG Cat	Project #	Project Description	Total	Total	Total	Total	Total	FY20-FY24
PW	1	PW 09-09	Water Reservoir Internal/External		0 0				-
PW	0	PW 05-08	Barrigada Tank Repair/Replacement	0.00	0.000	0.000	0.000	0.000	-
PW	1	PW 09-11	Water System Reservoirs 2005 Improvements	2789	1 1000	1000	1000	0	30,891
PW	1	PW 11-02	Ugum Water Treatment Plant Reservoir	750	0 0		0	0	7,500
PW	1	PW 12-04	Agana Heights & Chaot Tanks		0 0		0	0	-
PW	1	PW 12-05	Tank Major Repair Yigo #1, Mangilao #2, Astumbo #1		0 0		0	0	-
PW	1	PW 12-06	Tank Replacement Piti & Hyundai	650	0 0		0	0	6,500
PW	1	MP-PW-Tank-22	Existing Tank Inspections	15	0 0		0	0	150
PW	1	MP-PW-Tank-23	Recurring Tank Inspections	20	200	214	214	214	1,042
WW	1	WW 11-03	Baza Gardens STP Replacement		550	C	0	0	550
WW	1	WW 11-08	Agat/ Santa Rita STP Replacement		0 0	C	0	0	-
ww	1	WW 12-01	Northern District WWTP Primary Treatment Upgrades		0 0	C	0	0	-
ww	1	WW 12-07	Umatac Merizo STP Replacement		0 0	C	0	0	-
Subtotal	GCG Cat = 1	1 "Court Order Projec	ets"	42,241	1,750	1,214	1,214	214	46,633
		•							
WW	2	WW 05-04	Wastewater System Planning	15	0 0	C	0	0	150
WW	2	WW 09-01	Lift station upgrades	120	1000		2000	2291	6,491
WW	2	WW 09-06	Wastewater Collection System Repl/ Rehabilitation	200	2000		2000	2000	8,000
ww	2	WW 17-02	Northern District WWTP Secondary Treatment Upgrades		0 0	C	0	0	-
WW	2	MP-WW-Pipe-01	Gravity Pipe Rehabilitation/Replacement Program	17	2000	5346	750	6186	14,452
WW	2	MP-WW-Pipe-02	Barrigada Pump Station Pipe Rehabilitation/Replacement		0 0	411	3218	0	3,629
WW	2	MP-WW-Pipe-03	Route 1 Piti Pipe Rehabilitation/Replacement	234	0 0		0	0	2,340
ww	2	MP-WW-Pipe-04	Southern Link Pump Station Pipe Rehabilitation/Replacement	65	7 0	C	0	0	657
WW	2	MP-WW-Pipe-05	Agana Heights Pipe Replacement		0 0	169	2500	0	2,669
WW	2	MP-WW-Pipe-06	Northern District Route 1 Capacity Replacement - Phase 1		0 0	C	0	1169	1,169
WW	2	MP-WW-Pipe-11	Route 16 Capacity Replacement		0 0	C	0	571	571
ww	2	MP-WW-Pipe-12	Barrigada Capacity Replacement		0 0		0	47	47
ww	2	MP-WW-Pipe-17	Mamajanao Capacity Replacement	40	1300	2574	0	0	4,274
ww	2	MP-WW-Pipe-21	Baza Gardens Capacity Replacement - Phase 1		0 0		0	320	320
ww	2	MP-WW-Pipe-24	Umatac-Merizo Capacity Replacement		0 0		0	207	207
ww	2	MP-WW-Pipe-25	Piping Near Bayside Lift Station		2000		250	0	2,250
WW	2	MP-WW-Pipe-26	Finile Drive Rehabilitation - Agat	81	3 0		0	0	813
WW	2	MP-WW-MH-01	Manhole Rehabilitation Program	35	0 0	350	0	350	1,050
WW	2	MP-WW-FM-01	Force Main Rehabilitation/Replacement Program		0 100	1458	0	120	1,678
WW	2	MP-WW-FM-02	Replace Yigo Lift Station Force Main		200	1829	0	0	2,029
WW	2	MP-WW-FM-03	Route 1 Asan Force Main Rehabilitation/Replacement	212	4 0		0	0	2,124
ww	2	MP-WW-FM-04	Hagåtña WWTP Force Main Rehabilitation/Replacement	668	9 0		0	0	6,689
ww	2	MP-WW-Pump-01	Lift Station Rehabilitation/Replacement Program	212	0 6500	982	6124	2420	18,146
ww	2	MP-WW-Pump-02	Tumon Basin - Fujita Lift Station Analysis	792					10,923
ww	2	MP-WW-Pump-03	Replacement of Former Navy Pump Station (Donut Hole)	130			0	0	1,301
ww	2	MP-WW-WWTP-08			7500		0	0	15,300
WW	2	MP-WW-Misc-01B	Update Wastewater Collection System Model (Continued)	10					400
ww	2	MP-WW-Misc-02	I/I and SSES Assessments	15					550
ww	2	DoD-01	NDWWTP Secondary Treatment Capacity 12MGD	250					2,500
MISC	2	MP-Gen-Misc-08	General Plant Improvements	100					2,400
	_								,

				FY2	020	FY2021	FY2022	FY2023	FY2024	Subtotal By Project
<b>GWA Cat</b>	GCG Cat	Project #	Project Description	Tota	al	Total	Total	Total	Total	FY20-FY24
Subtotal (	GCG Cat = 2	2 "Consent Decree Pr	ojects"	3	1,987	26,100	21,219	17,442	16,381	113,129
					_		_	_		
PW	3	PW 05-09	Leak Detection		0	500 500		0		600
PW	3	PW 05-10	Potable Water System Planning		0			0		500
PW	3	PW 09-03	Water Distribution System Pipe Replacement and Upgrades		500	1000				7,750
PW	3	PW 14-01	Fire Hydrant Replacement Program		0	0				1,000
PW	3	MP-PW-Pipe-01	Astumbo Zone Piping		0	0		4482		4,850
PW	3	MP-PW-Pipe-04	Hyundai Well Piping		500	0	-	0		500
PW	3	MP-PW-Pipe-05	Kaiser Zone Looping		300	0	0	0		300
PW	3	MP-PW-Pipe-06	Mangilao Pressure Zone Realignment		300	0		0		300
PW	3	MP-PW-Pipe-07	Mataguac BPS Suction Piping		0	500	0	0		500
PW	3	MP-PW-Pipe-09	Yigo, Santa Rosa Zone Realignment		0	0				2,342
PW	3	MP-PW-Pipe-10	Miscellaneous Piping Projects		100	100	694	0		894
PW	3	MP-PW-Pipe-11	Miscellaneous Piping Connections		100	100	194	0		394
PW	3	MP-PW-Pipe-12	Rehabilitation and Replacement Program		1000	1000		3400		9,900
PW	3	MP-PW-Pipe-13	2-Inch Pipe Replacement Program		2730	1200				9,180
PW	3	MP-PW-Pipe-14	Asbestos Cement Pipe Replacement Program		0	0		3850		11,550
PW	3	MP-PW-Pipe-15	PRV Rehab and Replacement		1000	1450				6,386
PW	3	MP-PW-Pipe-16	Valve Exercise, Repair, and Replacement Program		250	0				750
PW	3	MP-PW-Pipe-17	Cross Island Highway Piping		0	100				1,501
PW	3	MP-PW-BPS-01	Rehabilitate and Replace BPSs		409	150		150		1,009
PW	3	MP-PW-BPS-02	Nimitz Hill Upper BPS		48	0	0	0	0	48
PW	3	MP-PW-Misc-02	Master Meter Implementation and Ongoing Meter Replacement		500	250	734	734	734	2,952
PW	3	MP-PW-Misc-03	Hydrant Condition Assessment and Maintenance		0	0	970	970	970	2,910
PW	3	MP-PW-Misc-05	Leak Detection Assistance		250	0	0	0	0	250
Subtotal (	GCG Cat = 3	3 "NRW Projects"			7,987	6,850	16,789	20,718	14,022	66,366
PW	4	PW 09-01	Ugum Water Treatment Plant Intake		0	500	700	0	0	1,200
PW	4	MP-PW-SWTP-01	Ugum SWTP River Intake Cleaning Project		0	0		0		380
PW	4	MP-PW-SWTP-02	Ugum SWTP Intake Modifications		1000	0		0		1,174
PW	4	MP-PW-SWTP-03	Ugum SWTP Reliability Improvements		1000	0	150	0		1,174
PW	•	MP-PW-SWTP-04	, ,		0	0		0		3,168
PW	4 4	MP-PW-Well-05	Ugum SWTP 7-Year Improvement Project Wellhead Protection Program		350	0		660		1,010
	•	MP-PW-Well-06	•		500	250		1274		4,798
PW	4		Well Repair Program					0		•
PW	4	DoD-3	Rehabilitation and New NGLA Monitoring Wells		4000	0				4,000
WW	4	MP-WW-Pipe-27	Septic/Cesspool System Reduction Program		0	0		3000		8,588
WW	4	MP-WW-WWTP-04	· ·			-	1700	1000	-	2,700
WW	4	MP-WW-WWTP-09			150	0				150
WW	4	MP-WW-Misc-03	Miscellaneous Wastewater Improvements		0	200		1000		2,700
WW	4	MP-WW-Misc-04	Fats, Oils, and Grease Study		150	0		0		150
MISC MISC	4 4	MC 05-01 MP-Gen-Misc-09	Laboratory Modernization Security and Resilience Program		0 100	0 100		0 100		- 600
IVIISC		Will Gell Wilde 09	Security and resilience frogram		100	100	200	100	100	
Subtotal (	GCG Cat =	4 "Env-Safety Compli	ance Projects"		7,250	1,050	6,654	7,034	9,780	31,768
PW	5	PW 05-13	Deep Well Rehabilitation		1538	0	4000	0	0	5,538
PW	5	PW 05-14	New Deep Wells at Down Hard		500	0	0	0	0	500

				FY2020	FY2021	FY2022	FY2023	FY2024	Subtotal By Project
GWA Cat	GCG Cat	Project #	Project Description	Total	Total	Total	Total	Total	FY20-FY24
PW	5	PW 05-15	Rehabilitation of Asan Springs	550	0	0	0	0	550
PW	5	PW 09-02	Water Wells	1500	1400	0	2000	0	4,900
PW	5	MP-PW-Well-03	Capacity Enhancement – Well Exploration Program	0	0	500	0	1188	1,688
PW	5	MP-PW-Well-04	Capacity Enhancement – Well Development and Construction Program	0	0	379	4622	0	5,001
WW	5	WW 17-01	Wastewater Sewer System Expansion	0	0	0	0	0	-
WW	5	DoD-02	Northern Systems Wastewater System	6000	0	0	0	0	6,000
MISC	5	MC 09-01	General Plant Improvements / Water	0	100	500	800	1000	2,400
Subtotal (	GCG Cat = !	5 "Capacity Projects'	•	10,088	1,500	5,379	7,422	2,188	26,577
PW	6	PW 05-06	Water Booster Pump Station	1200	700	300	2000	0	4,200
PW	6	PW 05-07	Meter Replacement Program	0		0		0	-
PW	6	PW 05-12	Brigade II (Ugum Lift) BPS Upgrade	0					_
PW	6	PW 05-16	Master Meters	0					_
PW	6	PW 09-04	Pressure Zone Realignment / Development 2005 Improvements	561					1,211
PW	6	PW 12-01	Water Audit Program & Water Loss Control Plan	0					-
PW	6	MP-PW-Pipe-02	Route 1 Astumbo Zone Piping	0					3,869
PW	6	MP-PW-Pipe-03	Harmon Cliffline Piping to Route 1	0					424
PW	6	MP-PW-Pipe-08	Nimitz Lower BPS Piping	0		0	121		1,590
PW	6	MP-PW-BPS-03	Route 15 BPS	0		0			86
PW	6	MP-PW-Well-01	Well Rehabilitation Program	400		2308	5368		12,016
PW	6	MP-PW-Well-02	Well Equipment Overhaul Program	0					2,518
ww	6	WW 09-11	WWTP Priority 1 Upgrades	0	0	0		0	-
EE	6	EE 09-02	Electrical Upgrade - Water Wells	90		0	0	0	90
EE	6	EE 09-04	Electrical Upgrade -Water Booster	150	0	0	0	0	150
EE	6	EE 09-05	Electrical Upgrade - Other Water	100		0	0	0	100
EE	6	EE 09-07	SCADA Improvements – Phase 2	45	0	0	0	0	45
EE	6	EE 09-08	SCADA Improvements – Phase 3	125	0	0	0	2000	2,125
EE	6	EE 09-09	SCADA Improvements – Phase 4	0	0	0	0	0	-
EE	6	MP-Gen-EE-01	SCADA Implementation Phase A2 – Initial Project Completion	2000	2600	1500	2600	2600	11,300
EE	6	MP-Gen-EE-02	SCADA Implementation Phase B – Additional Sites	0	0	0	600	600	1,200
EE	6	MP-Gen-EE-04	SCADA System Improvement Program	0	0	0	0	330	330
MISC	6	MC 15-01	Information Technology Intergration Improvements	0	100	500	500	500	1,600
MISC	6	MP-Gen-Misc-01	GWA Systems Planning	700	500			1000	2,550
MISC	6	MP-Gen-Misc-04	Information Technology Improvements	5400	200	100	100	200	6,000
MISC	6	MP-Gen-Misc-05	GWA Infrastructure Improvements	500	2000	0	250	0	2,750
MISC	6	MP-Gen-Misc-07	Mobile Equipment Replacement Program	800	200	100	100	400	1,600
Subtotal (	GCG Cat = (	6 "Efficiency Projects	s"	12,071	9,800	5,908	12,858	15,117	55,754
PW	7	MP-PW-Misc-01	South Guam Water Supply Study	200	0	0	0	0	200
PW	7	MP-PW-Misc-04	OneGuam Program	50					250
MISC	7	MP-Gen-Misc-02A	WRMP Update (Comprehensive Update)	0					100
MISC	7	MP-Gen-Misc-02B	WRMP Update (Interim Update)	200				-	200
MISC	7	MP-Gen-Misc-03	Surveying and Property Delineation	0					750
MISC	7	MP-Gen-Misc-06	GPWA Fleet Maintenance Facility	0					500
Subtotal	GCG Cat = 1	7 "Discretionary Pro	jects"	450	300	900	300	50	2000
		, , , , , , , , , , , , , , , , , , , ,							

	FY2020	FY2021	FY2022	FY2023	FY2024	Subtotal By Project
GWA Cat GCG Cat Project # Project Description	Total	Total	Total	Total	Total	FY20-FY24
Subtotal GCG Cat = 1 "Court Order Projects"	42,241	1,750	1,214	1,214	214	46,847
Subtotal GCG Cat = 2 "Consent Decree Projects"	31,987					135,551
Subtotal GCG Cat = 3 "NRW Projects"	7,987	6,850	16,789	20,718	14,022	72,797
Subtotal "All Other Projects"	29,859	12,650	18,841	27,614	27,135	136,454
Count Table by Very	112.074	47.250	F0.063	CC 000	F7 7F2	242 227
Grand Totals by Year	112,074	47,350	58,063	66,988	57,752	342,227