

GUAM PUBLIC UTILITIES COMMISSION
SPECIAL MEETING

February 19, 2020

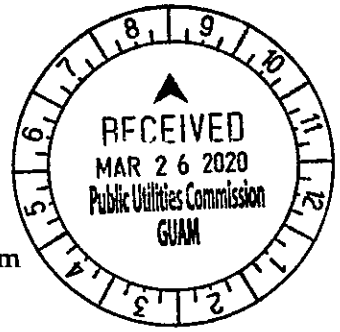
Held at Guam Consolidated Commission on Utilities Conference Room

Gloria B. Nelson Public Service Building

3rd Floor

688 Route 15, Mangilao, Guam 96913

6:30p.m., February 19, 2020



MINUTES

The Guam Public Utilities Commission [PUC] conducted a special meeting commencing at 6:35 p.m. on February 19, 2020, pursuant to due and lawful notice. Commissioners Johnson, Perez, McDonald, Pangelinan, Montinola, Brooks, and Guerrero were in attendance. The following matters were considered at the meeting under the agenda included as *Attachment "A"* hereto.

1. Guam Waterworks Authority

The Chairperson welcomed new Commissioners Doris Flores-Brooks and Pedro Guerrero. ALJ Horecky indicated that the purpose of the meeting was to give the PUC Commissioners an opportunity to more thoroughly understand the GWA Water Rate Case. Georgetown and GWA will first give presentations and then the Commissioners will be given the opportunity to ask questions. No business would be conducted during this meeting, and the matter of the GWA rate case is scheduled to be resolved at the PUC Meeting on February 27, 2020. The ALJ indicated that the PUC consultants on water and wastewater, Georgetown Consulting Group Inc. ["GCG"], were in attendance at the meeting and would make a presentation. GCG members attending were Jim Madan, Larry Gawlik, Robert Young, and Bill Norris. Each member of the GCG team introduced himself. Each indicated his experience in regulatory matters. Then the GM of GWA, Miguel Bordallo, indicated that he and legal counsel Kelly Clark were a part of the GWA team. Eric Rothstein, the GWA Rate Consultant, introduced himself and explained his background as a CPA and Consultant.

GCG then proceeded to make its presentation. Larry Gawlik indicated that GCG and GWA had reached a Stipulation on the rate case, which saved the parties the time and expense of having to go through a litigated or contested proceeding. Neither side got everything that it wanted in the Stipulation. GCG fully supports the Stipulation. Mr. Gawlik indicated that the proceeding had started in July, 2019, with GWA's filing of its petition which included a 5-year financial plan. Attached hereto as Exhibit "1" is a copy of the STIPULATIONS that GWA and GCG entered into on January 17, 2020. Rather than repeat the presentation provided by Larry Gawlik for GCG, attached hereto as

Exhibit "2" is the GCG "PRESENTATION TO GPUC, DOCKET #19-08 WORKSHOP (GEORGETWON CONSULTING GROUP INC., FEBRUARY 19, 2020)." Mr. Gawlik indicated that the Stipulation basically provided that a 5% rate increase would go into effect for FY2020 upon the issuance by the PUC of a Final Order in this docket, and a second increase of 5% would go into effect on October 1, 2021. The stipulation provides for a number of studies that GWA would conduct the results of which would be provided to the PUC and GCG in March of 2021. Thereafter, rates would be set for FY2022 through FY2024.

According to Mr. Gawlik, the Stipulation seek to address the issue of water loss by GWA, which has been at the exceedingly high level of 55%. He characterized this issue as the "critical issue confronting GWA... from an economic efficiency stand point." Mr. Gawlik indicated that GCG recommended approval of the Stipulations. They were negotiated at arm's length. GWA is seeking to set different rates from those set in the Stipulation. The parties agreed to an increase in water base rates of the 5% in FY2020, and 5% in FY2021. The rates for FY2020 take place upon the PUC issuing a final order in Docket 19-08.

GWA GM Bordallo then began GWA's presentation. He felt that the GWA initial filing was adequate. He turned the presentation over to Mr. Eric Rothstein, the GWA Consultant. Mr. Rothstein proceeded to give the GWA presentation. A true and correct copy of GWA's presentation, REQUEST FOR APPROVAL OF FY2020-24 FINANCIAL PLAN is attached hereto as Exhibit "3". The GWA filing was in compliance with the minimum PUC requirements. The schedules included a forecasting model, a rate model, and a financial planning model. GWA indicated that it will be 236 days from the GWA filing to the PUC Order in this docket, if that occurs on February 27. GWA is concerned about the amount of time the rate case has taken. GWA supports the Stipulation. In terms of the rates, GWA negotiated about a \$248 million dollars revenue requirement over the 2-year period. If the rates were just set at the 5% over a 7-month period as opposed to a 12-month period, GWA would have a revenue reduction of about \$2.2 million dollars. This could impact fund balances and covered ratios. Setting the rates at 8.57% for the rest of FY2020 and 2% for FY2021 is consistent with the Stipulation. The principal payments under the 2020 bond issue will be deferred for five years. Some large amounts will be due when the principal kicks in. Mr. Rothstein indicated that GWA was in agreement with GCG about the importance of non-revenue water. GWA has already been doing a lot in this area, about \$8M a year in projects. GWA has now adopted a programmatic approach to water loss.

GWA approached its rate case filing on the assumption that existing policies and the existing framework would be used to establish a financial plan and rate recommendations. GCG developed a financial plan under the assumption that policy changes would be in place. The basic problem is that the approach of the parties to the rate case was different. The issue was whether GWA should approach rate applications based upon existing policies, or whether assumptions can be made for recommended

policy changes not yet enacted by the PUC. With regard to a cost of service study, one was done in 2016. However, we already know that GWA's rates are not cost of service based rates. An issue to be addressed by the studies GWA will conduct is affordability and impacts of water rates on low-income customers. Mr. Rothstein noted that a cost of service study was not required under PUC filing requirements. GWA does agree, however that it is a good idea to do a cost of service analysis, and a rate design study. GWA supports the movement to a 1.40 debt service coverage ratio at least on an interim basis. GWA does request that the PUC approve the parties' stipulation. However, GWA does request compression of the rates.

Mr. Gawlik of GCG proceeded to give a brief rebuttal. The parties appeared to agree upon the Stipulation. They also agree on the studies required to be conducted as outlined in the Stipulation. As to when the rates will be effective, the Stipulation specifically state the dates upon which they will go into effect. There was no discussion between the parties of compression when negotiating the Stipulation. There is nothing in the Stipulation concerning compression.

Commissioner Simon Sanchez of the Consolidated Commission on Utilities proceeded to make comments. Mr. Sanchez stated that he supported the Stipulation. The collaboration between GWA and PUC in rate cases has put GWA in a position now where it did not have to go into receivership and where it has matured. While water rates may have increased 300% over 20 years, the average residential bill has gone from \$25 to \$65 per month. GWA could not pay as much attention to non-revenue water for the past 20 years because USEPA required GWA to put hundreds of millions of dollars into the water system. A decision was made long ago that commercial rates subsidize residential rates. If the embedded subsidies of commercial to residential are gotten rid of, residential rates would be driven up substantially. That is a policy that we need to think about. Non-revenue water was not what USEPA wanted GWA to focus on. What good would it be to reduce non-revenue water if water you were drinking got to your house, but you couldn't drink it. As a result, GWA became credit-worthy.

GWA's improved credit rating over the past 20 years has allowed it to reduce its cost of funds by 2% at about \$500 million dollars' worth of debt. This is \$10M a year in debt service savings. It may be too expensive, at a cost of \$15,000, to hook every citizen up to a nearby sewer line. Mr. Sanchez does not believe that this problem can be easily resolved. With Navy water, GWA now buys 50-60% less than it did 20 years ago. GWA negotiated with for the Tumon Maui Well. The idea of water exchange may work very well. GWA has only increased wages for its employees to the tenth (10th) percentile. Mr. Sanchez did ask the PUC to consider compression. If compression is not granted, rate increases are just being delayed.

The Chairman then indicated that the PUC Commissioners would be given an opportunity to ask questions. Commissioner Montinola mentioned the 55% water loss and asked what GWA had in mind in terms of bringing that number down. GM

Bordallo indicated that the AWWA is no longer recommending that the water industry use percentages of non-revenue water as targets. GWA is developing a water loss control plan. An updated matrix will come out in June from the AWWA. GWA is now looking at district metered areas. GWA has performed a pilot test with favorable results. GWA is now attempting to adjust pressure zone realignment to reduce leakage. There are also line replacement projects including replacement of 2-inch galvanized and asbestos concrete pipelines. These line replacements will reduce the amount of non-revenue water. Commissioner Montinola and GM Bordallo discussed reporting requirements concerning non-revenue water.

Commissioner Pangelinan asked GWA if it wasn't just an oversight to clarify the compression issue. Can GWA point to elsewhere in the Stipulation that supports compression? GM Bordallo pointed to the proforma results in the schedule attached to the Stipulation. The revenue in that formula for fiscal year FY2020 provides for a 5% rate over the fiscal year. The modeling was done based on 12 months. GWA anticipated in its Petition that it would have rates in the beginning of the fiscal year. GM Bordallo agreed that it was an oversight on GWA's part not to specifically include the language that there would be rate compression. It was an oversight on Georgetown's part not to include language that GWA would only received the 5% revenues for 7 months out of 12. It was also an oversight to allow the attached schedule to show the full year at the 5%. Commissioner Pangelinan also asked whose fault it was that the rate proceedings took so long. GM Bordallo wouldn't say that it was necessarily the fault of the PUC. There were disagreements between GWA and GCG as to what information was required. GWA wishes to proceed for what it needs to complete the court ordered projects. It is already late, beyond the court ordered deadline. Mr. Rothstein indicated that much time was "chewed up" discussing whether the financial plan should be determined to existing policies or based upon recommended policy changes.

Commissioner McDonald asked with a Navy water exchange negotiation, what was the timeline on reaching an agreement. GM Bordallo indicated that the Navy and GWA still have the same MOU in operation. There has been discussion of an exchange on a volume-per-volume basis. However, there has been no agreement because Navy is not yet ready to come online. When the base comes online in about a year and a half, an agreement would be formalized. Commissioner Guerrero asked why we need to wait for the Department of Defense. GM Bordallo said the only thing GWA was waiting for is for Navy to need the water. The line is already there. Commissioner Guerrero asked whether we needed the water or the exchange. GWA needs an exchange to reduce the cost on its side, not to just benefit Navy. GM Bordallo indicated that the exchange program had to be formalized.

Chairman Johnson asked whether the Navy demand might be of their equivalent to what GWA is buying from Navy now. GM Bordallo indicated that it was only a portion of what GWA is buying from Navy. Chairman Johnson asked whether there are

opportunities for a plant for the South to make up for the expensive water was buying from Navy that keeps escalating every year. GM Bordallo indicated GWA was completing plans to send more Northern well water through Cross Island Road to those areas to reduce the need for Navy water. Another option is GWA buying raw water from the Navy, not having them treat it, but having GWA treat it—that would be cheaper.

Commissioner Perez asked whether there was any water exchanged by GWA with Navy at the present time. GM Bordallo indicated there was not. Commissioner Perez asked whether this would be our first opportunity to establish the water exchange program. GM Bordallo indicated that was correct. Commissioner Perez asked about the potential \$4M in savings. Mr. Gawlik indicated that would apply if we could displace all of it (the Navy Water). Commissioner Perez indicated she agreed with Commissioner Sanchez that GWA had come a long way, and had obtained a credit rating to enable it to get funding. CCU Commissioner Sanchez stated that we all want to use less Navy water. We are trying to figure out the cheapest way to do it. Commissioner Perez asked on the targeted affordability program, what is the percentage of rate payers that are under lifeline. GM Bordallo indicated that everyone was. GM Bordallo indicated that 50 percent of the GWA residential customers use less than the lifeline rate. But that they are not all lifeline. GM Bordallo indicated that GWA intends to move forward with its affordability program over the five year period.

Commissioner Perez asked what made GCG to agree to the two 5% rate increases in FY2020 and 2021 when GWA had not presented a cost of service analysis or rate design analysis. Mr. Gawlik indicated that GCG carefully looked at the revenues and expenses of GWA. Certain adjustments were made. GCG concluded that the two rate increases were sufficient to accomplish necessary goals while maintaining the construction program and accelerating the issue of non-revenue water. Mr. Gawlik indicated that there would be savings between \$10 to \$15 million from what GWA had originally requested in its Petition. As to GWA's claimed loss of revenues, Mr. Gawlik indicated that you could not just look at the \$2.2 million dollars of revenues; if you look at revenues, you must look at everything else as well. The rate numbers arrived at our good. Commissioner Perez asked whether GWA and GCG could accomplish the studies within the deadlines stipulated. GM Bordallo indicated it could, but not without cost. Commissioner Perez indicated that GWA already seemed to have its water loss program conceptualized and have already been pursuing a leak approach. GM Bordallo concurred. Commissioner Perez asked whether GWA would negotiate on the consent decree projects. GM Bordallo said that they would.

Commissioner Flores-Brooks asked whether GWA could compete all of the required studies by March 31 of FY2021. GM Bordallo indicated that they could. Chairman Johnson asked, with regard to deferral of principal on the proposed bond issuance, whether if that was done away with, would it affect rates. Commissioner Sanchez indicated that it would only delay a rate hike. The principal is not cancelled. CCU

Commissioner Sanchez indicated that GWA could use savings produced by the studies to offset the deferral. Mr. Gawlik indicated that principal was deferred because otherwise there would be a large bump in the rates in FY2022. It was also hoped that water loss savings would be great after five years. Mr. Rothstein indicated that the deferred principal amount is \$2.9M, and that will have to be paid the first year outside of the rate application period. Mr. Rothstein indicated that interest also has to be paid on the deferral. Commissioner Flores-Brooks asked whether it was common to defer principal for five years on a bond issuance. Mr. Gawlik indicated that it was not that uncommon. It has been done in many cases for utilities.

Chairman Johnson complemented GWA in being reasonable in increasing employees' salaries pursuant to the legislative authorization for increasing salaries between the 10th and 50th percentile. GM Bordallo indicated that GWA was losing qualified people to other entities. Commissioner Guerrero asked whether an apprentice program could be created to replace the employees. GM Bordallo indicated that the apprentices still had to be paid. Commissioner Guerrero said that we should have a training program to replace people that leave GWA. He didn't see a training program in effect. GM Bordallo said that there was a training program.

Commissioner Flores-Brooks asked when GWA would submit its proposed rate increases for FY22, 23, and 24. GM Bordallo indicated all the studies would be done by March 2020, and the rate package would be submitted after that. There would be sufficient time in the process to get rates into place by the beginning of the fiscal year. Commissioner Flores-Brooks asked CCU Commissioner Sanchez the extent to which commercial customers were now subsidizing residential customers. Mr. Sanchez indicated that it was "significant." He felt that would be the biggest battle with affordability. Consultant Rothstein stated that it would be "about 68%." Mr. Sanchez stated that he would like the Guam tourists to help pay the water and power bill as opposed to Guam residents, ratepayers. Mr. Gawlik indicated that GWA was providing a subsidy from the water customers to the wastewater customers, as there are 14,000 fewer wastewater customers than water customers.

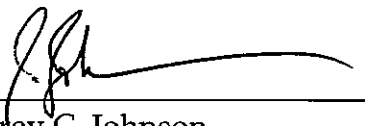
Chairman Johnson asked GM Bordallo where GWA was on the System Development Charge. GM Bordallo indicated there was \$8 or \$9M in the SDC Fund. A portion of SDC is slated for CIP. There are some restrictions on the fund, and GWA believes that something can be done to make it more effective. CCU Commissioner Sanchez stated that 7 or 8 million will go quickly.

Commissioner Guerrero believes that someone should be running to the PUC and asking for a rate reduction. The biggest customer on Guam, commercial customers, are in trouble. The corona virus issue has changed the dynamic of Tumon. Visitors are starting to slow. If revenue is lost from the category 3 commercial customers, we will not be able to cover expense for debt service and the loan. Ratepayers may not pay or cover the expenses of GWA operation. Commissioner Guerrero felt that GWA may not

be using the grant funds given to it by USEPA, which is more than \$40M. GM Bordallo indicated those funds were being used for CIPs. Commissioner Guerrero felt that with 10 years worth of rate increases, and water leaks continuing to exist, that something is wrong. The same amount of leaks are recorded today as 10 years ago. He agreed that we do need to fix the sewer system, which is in bad shape. But the water system is one of the strongest. If consumer or tourist consumption is lost, we will be in trouble.

Chairman Johnson thanked everyone for coming tonight and expressing viewpoints, and providing the opportunity for questions.

There being no further administrative matters or business, the Commissioners moved to adjourn the meeting.

A handwritten signature in black ink, appearing to read 'J. Johnson', is written over a horizontal line.

Jeffrey C. Johnson
Chairperson

BEFORE THE GUAM PUBLIC UTILITIES COMMISSION

SPECIAL MEETING

**TO BE HELD AT GUAM CONSOLIDATED COMMISSION
ON UTILITIES CONFERENCE ROOM**

GLORIA B. NELSON PUBLIC SERVICE BUILDING

3RD FLOOR

688 ROUTE 15, MANGILAO, GUAM 96913

6:30 p.m., February 19, 2020

Agenda

1. Guam Waterworks Authority

- **GWA Docket 19-08, In Re: Petition for Approval of GWA's Third Five-Year Financial Plan**

**Presentation by GWA and Georgetown Consulting Group (GCG)
on Proposed Stipulation to Resolve GWA Water Rate Case**

**Work Session for the purpose of providing Guam PUC
Commissioners an opportunity to question GWA and GCG
concerning the Proposed Stipulation and the Rate Case**

1
2 **BEFORE THE GUAM PUBLIC UTILITIES COMMISSION**

3 **IN RE: PETITION FOR APPROVAL OF) DOCKET NUMBER NO. 19-08**
4 **GWA'S THIRD FIVE-YEAR)**
5 **FINANCIAL PLAN.) STIPULATIONS OF THE GUAM**
6 **) WATERWORKS AUTHORITY AND**
7 **) GEORGETOWN CONSULTING GROUP**
8 **) ON BEHALF OF THE PUBLIC UTILITY**
9 **) COMMISSION OF GUAM**
10)

11 **PROPOSED STIPULATION**

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

16 **PREAMBLE**

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

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

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

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

28 *Whereas, GCG was authorized by the PUC to serve as Technical Consultants on April*
29 *23, 2019 in Docket No. 19-08 to review GWA's Petition and GCG reviewed GWA's Petition and*
30 *rate filing information; and*
31
32

1
Ex. 1

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

4
5 *Whereas, the Parties jointly recommend that a series of studies be undertaken to provide*
6 *the PUC critical information upon which to consider adjustments to its FY 2020 – 2024 financial*
7 *plan; and*

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

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

15
16 **STIPULATED PROVISIONS**

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

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

24
25 1. Demand Forecasting – GWA must prepare a comprehensive econometric forecast
26 of water sale volumes (kGal) by customer class using a methodology similar to the method used
27 by the Guam Power Authority (GPA) to prepare its electricity sales forecast. GWA may elect to
28 work with GPA in producing this forecast.

29 a. The forecast will consider, as deemed appropriate, variables such as: weather,
30 measures of economic activity, population, construction, water appliance
31 efficiency and conservation measures, tourism and other variables considered
32 relevant.

- 1 b. GWA will consider, as deemed appropriate, modeling the hotel class by individual
2 customer for the largest 10 – 20 customers and meeting with local hotel facility
3 managers about plans such as expansion and water conservation measures and
4 equipment that they plan to install within the next five (5) years. GWA will
5 consider, as deemed appropriate, the relationship between hotel water
6 consumption, tourist arrivals and room occupancy.
- 7 c. Related projections of GWA water production will be prepared specifically to
8 include consideration of demonstrated impacts of GWA's water loss management
9 initiatives.
- 10 d. The study must be completed no later than March 31, 2021 for consideration by
11 the PUC in the FY 2022 Comprehensive Review and Update to GWA's Five-Year
12 Financial Plan.

13 2. Water Loss Reduction – GWA will advance and expand water loss reduction
14 measures including accelerating planned water line replacements, implementation of district
15 metering areas and other high priority measures.

- 16 a. GWA will undertake a comprehensive systemwide water loss reduction program
17 designed to provide meaningful reductions in annual water loss volumes (kGal)
18 deemed to be economically justifiable. The Parties agree that any water loss
19 reduction project shown in the analytical study to have a benefit-cost ratio above
20 1.25 will be accelerated to the extent practicable.
- 21 b. GWA will continue its ongoing loss reduction field work with Water Systems
22 Optimization, Inc. (WSO), or other experts, for the purpose of identifying
23 implementable loss reduction measures and appropriate loss reduction targets for
24 its water system. GWA will evaluate calendar year 2020 outcomes of water loss
25 reduction efforts in district metering areas for consideration in making adjustments
26 to its FY 2022 – 2024 water production and variable expense estimates.
- 27 c. GWA will identify water loss reduction projects and the corresponding benefit-
28 cost ratio associated with each project and will rank each water loss reduction
29 project with a benefit-cost ratio above 1.0 from the highest to the lowest.
30 Documentation of water loss reductions achieved for the period and a
31 comprehensive five (5) year (FY 2022 – 2026) water loss reduction plan (inclusive
32 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.¹

- 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/NACWA²/WEF report submitted to EPA in May 2019,³ and will prepare Financial Capability Assessment (FCA) information using its recommendations.

- a. In conjunction with GWA's COS study, GWA will prepare an evaluation of options to address low-income water affordability challenges through both the

¹ AWWA Manual of Practice (M1), Principles of Water Rates, Fees and Charges, 7th Edition and WEF Manual of Practice (No. 27), Financing and Charges for Wastewater Systems, 4th Edition.

² National Association of Clean Water Agencies (NACWA).

³ "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.

1 design of a Customer Assistance Program and revision of its current residential
2 lifeline rate structure. The study will consider alternative low-income Customer
3 Assistance Programs (CAP) and the financing of such programs (intra- and inter-
4 class subsidies) as well as rate design alternatives.

- 5 b. The Parties agree that reasonable efforts will be made to provide for water rates
6 that result in an improvement in the affordability of basic water service and
7 consider cost impacts of all Guam utilities on low-income customers. The study
8 will be completed and submitted no later than March 31, 2021 to the PUC to
9 support the FY 2022 Comprehensive Review and Update to GWA's Five-Year
10 Financial Plan.

11 5. Capital Financing – GWA agrees to pursue legislative and other actions necessary,
12 including working with the PUC and the Guam Economic Development Authority (GEDA) and
13 appropriate financial advisors to enable access to certain financing tools, and to modify selected
14 financial policies. GCG agrees to support GWA's actions before the PUC in pursuing the
15 following enhancements to its financing vehicles:

- 16 a. GWA agrees to investigate the availability and relative costs of alternative debt
17 instruments such as letters-of-credit or surety bonds to fund debt service reserves
18 in lieu of bond financing required reserves through debt issuance proceeds. If
19 determined to be viable and economical, GWA agrees to recommend to the CCU,
20 Legislature and PUC the approval of this option for meeting debt service reserve
21 fund requirements delineated in GWA's indenture.
- 22 b. GWA agrees to investigate the availability and relative costs of the use of
23 commercial paper or lines of credit to finance its ongoing capital construction
24 program following issuance of its Series 2020 revenue bonds. If determined to be
25 viable and economical, GWA agrees to seek necessary approvals to allow GWA
26 the option to employ commercial paper for prospective capital financing.
- 27 c. These activities will be completed a timely manner to allow adjustment to FY 2022
28 – 2024 rates in conjunction with the FY 2022 Comprehensive Review and Update
29 of GWA's Financial Plan. Given the uncertainty of both the availability and costs
30 of these alternative financing options, the Parties agree that the stipulated FY 2020
31 and FY 2021 rates will not assume the availability of these instruments.
- 32

1 6. Capitalized Labor – GWA agrees to undertake a review of its current capitalized
2 labor expense protocol to be completed no later than March 31, 2021 to support the FY 2022
3 Comprehensive Review and Update to GWA's Five-Year Financial Plan.

4 7. Cesspool/Septic Tank Elimination – GWA agrees to investigate options to
5 enhance compliance with Title 10, Chapter 48, Toilet Facilities and Sewage Disposal, potentially
6 including legislatively approved transfer of regulatory authority to GWA. GWA will complete
7 its septic tank / cesspool review and analysis, and provide its recommendations to the PUC for
8 review and consideration no later than March 31, 2021.

9 a. GWA will identify all residential facilities with 200 ft. of an existing GWA
10 sanitary sewer line or 1000 ft. of a GWA water well that require specific action
11 steps to be taken by GWA in accordance with Chapter 48. GWA will estimate the
12 potential consumer and GWA investments required, identify potential sources of
13 funding these investments and estimate GWA revenue impacts and expenses of
14 implementation.

15 b. GWA will consider alternative funding mechanisms to assist consumers in
16 connecting to the sewer system, including use of the SDC fund to increase the
17 funds available in the sewer connection revolving fund. GWA will evaluate
18 potential obstacles, if any, to using the SDC fund and outline potential solutions.
19 Other funding mechanisms may be explored as well including private sector
20 financing.

21 c. GWA agrees to notify the CCU and PUC on a timely basis if potential barriers,
22 including funding and procurement issues, may preclude completion of the above-
23 listed studies by the completion dates scheduled and to request necessary
24 modifications and approval of any changes.

25 8 FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan
26 -The review will require GWA to supplement the filings of the studies enumerated below with
27 reporting to the PUC by May 1, 2021 on:

28 a. Forecasted (per the stipulated FY 2020 – 2024 rate plan) versus actual performance
29 by the categories of GWA revenues and expense included in GWA's Five-Year
30 Financial Plan filed with the PUC on July 6, 2019. This variance analysis reporting
31 will address and explain, through narrative and supporting analyses, reasons for
32 variances between forecasted and actual (FY 2020 audited data and FY2021 YTD

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

3 b. GWA will submit proposed updates to its Five-Year Financial Plan for FY 2022 –
4 2024 and supporting rate model based in part on the findings and recommendations
5 of the studies enumerated above. GWA will provide documentation of how
6 findings of each study were incorporated into GWA's revised financial plan by
7 major categories of GWA revenues and expense.

8 c. GWA will provide documentation including, but not limited to a petition, reports,
9 memos, spreadsheets and workpapers outlining how the findings and
10 recommendations of the GWA demand forecast, water loss reduction, cost of
11 service, affordability, capital financing, and other analyses are proposed to be
12 incorporated into the FY 2022 Comprehensive Review and Update to GWA's
13 Five-Year Financial Plan.

14 **The FY 2022 Comprehensive Review and Update to GWA's Five-year Financial Plan**
15 **contemplates an enhanced annual rate review process and specifically does not constitute a new**
16 **GWA rate application. GWA will provide both the CCU and PUC detailed submissions and**
17 **briefings on these submissions and GWA rate model adjustments by May 1, 2021. As noted**
18 **below, GWA will respond to Requests for Information or PUC submittals regarding the studies**
19 **and GWA rate model adjustments on a timely basis throughout the review process. PUC action**
20 **on the FY 2022 Comprehensive Review and Update to GWA's Five-year Financial Plan is**
21 **anticipated by September 2021. The review process is recommended by the Parties to provide for**
22 **full and appropriate consideration of the studies that GWA has agreed to complete by March 31,**
23 **2021.**

24 **II. GWA's FY 2020 – FY 2024 Financial Plan**

25
26 1. **FY 2020 – 2021 Base Water Rates – By this Stipulation, the Parties agree to the**
27 **proforma results of operations contained in the detailed Attachment A for the period FY 2020 –**
28 **2021 that memorializes the details of projections that the Parties have agreed to recommend to**
29 **the PUC for its review and approval.**

30 2. **FY 2020 – FY 2021 Base Rate Increase Implementation – The Parties agree to the**
31 **stipulated water and wastewater base rate increases of 5.0 % in FY2020 and 5.0% in FY2021.**
32 **The rate increase for FY 2020 will take place upon the PUC issuing a final order in Docket No.**

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

3
4 3. DSCR – The Parties acknowledge that the projected debt service coverage ratio
5 (DSCR) for FY2020-2021 is below the target of 1.75x the PUC has set to be achieved for
6 ratemaking purposes.

7 4. Policy Changes – The Parties will use best efforts to secure revisions to CCU and
8 PUC policies related to minimum debt service coverage levels:

- 9 a. Revision of the CCU policy (adopted by Resolution No. 21-FY2014) that calls for
10 funding of a Working Capital and Debt Service Reserve that "serves to establish a
11 Cash Reserve for supplementing Net Revenues for the sole purpose of meeting the
12 PUC's currently established ADSCR [Aggregate Debt Service Coverage Ratio]
13 requirement that Net Revenues will be 175%- or 1.75 times annual debt service."
14 The revision would provide for meeting of a PUC minimum ADSCR target based
15 on a calculation consistent with GWA's indenture (and common municipal finance
16 practice) that does not supplement Net Revenues with such reserves.
- 17 b. Revision and clarification of the PUC's order (Regulatory Review of GWA
18 Interim Financial Plan Under Federal Court Order in Civil Case 02-35 - Docket
19 04-01: FY 2005 Rate Order) that a minimum 1.75x coverage ratio is established
20 for purposes of setting just and reasonable rates for GWA (Paragraph 8, p. 5).
- 21 c. The Parties to this stipulation agree to support the approval of both policy changes
22 inclusive of a minimum 1.40x debt service coverage ratio. It is further
23 recommended that as part of CCU and PUC's consideration of alternative debt
24 financing instruments, the PUC debt service coverage policy be reevaluated based
25 on references to credit rating agency medians of comparable and favorably rated
26 debt issuers and consideration of customer affordability of utility services.

27 5. kGal Water Sales – For purposes of the FY 2020 – 2021 revenue requirements, the
28 Parties stipulate that the annual water sales volumes by customer class will not be adjusted from
29 GWA's original July 6, 2019 rate application. Adjustments may be implemented beginning in
30 FY 2022 based on the results of the supporting "Analytical Studies" enumerated above that will
31 be incorporated into the FY 2022 Comprehensive Review and Update to GWA's Five-Year
32 Financial Plan.

1 6. **Water Loss Reduction Program** – The Parties stipulate GWA will be deploying an
2 aggressive water loss reduction program. For purposes of FY 2020 – 2021, GWA's water
3 production forecast will be adjusted to reflect anticipated reductions in water losses due to GWA's
4 expansion and acceleration of water loss reduction measures:

- 5 a. FY 2020 production volumes will be adjusted based on a projected reduction of
6 non-revenue water by 2.00% of actual FY 2019 production (adjusted for partial
7 year implementation, which implementation will begin no later than March 1,
8 2020).
- 9 b. FY 2021 production volumes will be adjusted based on a projected non-revenue
10 water reduction of an additional 2.75% of actual FY 2020 production for a
11 cumulative total of 4.75% (adjusted for FY 2020 partial year implementation).
- 12 c. GWA will include planned water loss reduction project spending for FY 2020 –
13 2021 of no less than \$14 million. GWA will consider the efficacy of alternative
14 project delivery options to effect acceleration of water loss reduction project
15 implementation.

16 7. **Labor/Benefits Expenses** – The Parties stipulate to the GCG adjustments for FY
17 2020 – 2021 of Personnel Salary and Benefits expenses. Projected annual expense reductions
18 are:

19

20

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

22

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

29

30

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

32

1 9. Capital and Financing Programs – The Parties have agreed to the following for
2 purposes of development of GWA's Five-Year Financial Plan:

- 3 a. GWA's financial plan will be based on a projected fund balance target (as shown
4 in Attachment A) of not less than \$3 million and a debt service coverage ratio⁴ of
5 1.40x – 1.50x.
- 6 b. GWA's \$134 million Series 2020 bond issue will be structured with a term of
7 thirty (30) years, two (2) years of capitalized interest, and assumed to be issued at
8 an average coupon rate of five percent (5%) with costs of issuance equal to two
9 percent (2%) of par. For the Series 2020 bonds principal payments will be deferred
10 for a five (5) year period.
- 11 c. GWA will re-program all existing non-committed bond fund balances (from its
12 past three issues) in an amount of no less than \$2.7 million to its capital program
13 (see Attachment B), subject to applicable PUC review procedures and will provide
14 a priority consideration to funding with reprogramed funds non-revenue water
15 projects.

16 **III. Potential Capital and Financing Program Revisions**

17
18 Based on outcomes of the efforts outlined in item number 5 above to be completed by
19 March 31, 2021, the Parties stipulate to the following (which may result in adjustments to GWA's
20 Financial Plan):

- 21 a. GWA's targeted debt service coverage ratio⁵ of 1.40x – 1.50x may be adjusted
22 based on evaluation of potential policy changes enumerated in 4 (c) above.
- 23 b. Use of up to \$50 million in commercial paper or lines-of-credit, to the extent
24 allowed by GWA enabling legislation and if cost-effective, may be used to
25 augment GWA's ongoing construction capital requirements with available capital
26 funds.
- 27 c. GWA will seek to lower the financing cost associated with the capital funding of
28 debt service reserve funds for subsequent borrowings by using letters-of-credit or
29 surety bonds as allowed by GWA enabling legislation.

30
31 ⁴ As traditionally calculated as the ratio of net operating expenses divided by scheduled debt service payments per
32 GWA's bond indenture (without adjustment for debt service reserve funds).

⁵ 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).

1
2
3 **IV. Water Loss Reduction Targets**

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

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

25 **V. Consent Decree:**

26
27 Upon completion of substantive Consent Decree negotiations with USEPA (and lifting of
28 confidentiality restrictions), GWA will provide a detailed briefing on the proposed decree to the
29 PUC. This briefing will outline, among other matters, potential GWA spending commitments
30 that will impact future rate revenue requirements and to provide a comparison to what was
31 projected in GWA's Five-Year Financial Plan.

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

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

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

29 **VII. Procedural Provisions**

30
31 The FY 2022 Comprehensive Review and Update to GWA's Five-Year Financial Plan
32 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

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

5 **SO STIPULATED this 17th day of January 2020.**

6
7 **GUAM WATERWORKS AUTHORITY**

8
9
10 BY: 
11 KELLY O. CLARK
12 GWA GENERAL COUNSEL

13
14 **GEORGETOWN CONSULTING GROUP, INC.**

15
16 BY: 
17 JAMSHED MADAN

18
19 **ATTACHMENTS A & B**
20
21
22
23
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27
28
29
30
31
32

GUAM WATERWORKS AUTHORITY

PROPOSED 5-YEAR FINANCIAL PLAN 2020 - 2024

| | Projection | | | |
|--|--------------------|--------------------|--------------------|--------------------|
| | 2020 | 2021 | 2022 | 2023 |
| Basic Charge -Water | 5.00% | 5.00% | 5.50% | 3.00% |
| Lifeline Increase | 0.00% | 0.00% | 0.00% | 0.00% |
| Non-Lifeline Increase | 5.00% | 5.00% | 5.50% | 3.00% |
| Legislative Surcharge | 3.60% | 3.60% | 3.40% | 3.45% |
| Customer Growth | 0.50% | 0.50% | 0.50% | 0.50% |
| Demand Growth | 0.00% | 0.00% | 0.00% | 0.00% |
| OPERATING REVENUES | | | | |
| Water Revenues | 120,007,713 | 125,418,435 | 132,048,975 | 135,575,858 |
| Wastewater Revenues | \$ 73,925,751 | \$ 77,436,674 | \$ 81,489,096 | \$ 83,856,280 |
| Legislative Surcharge | 42,401,836 | 44,115,188 | 46,588,441 | 47,746,340 |
| Other Revenues | 3,880,126 | 3,866,573 | 3,968,438 | 3,973,236 |
| System Development Charge | 431,932 | 430,737 | 433,741 | 432,137 |
| | 914,964 | 928,304 | 832,509 | 892,259 |
| Total Operating Revenues | 121,354,609 | 126,778,476 | 133,513,225 | 138,908,252 |
| O & M EXPENSES | | | | |
| Power Purchases | 13,360,480 | 12,985,576 | 12,437,383 | 11,464,591 |
| Water Purchases | 9,723,387 | 10,123,308 | 10,377,505 | 10,700,149 |
| | 23,083,877 | 23,108,884 | 22,814,888 | 22,164,741 |
| Salaries and Benefits | 24,827,194 | 26,814,544 | 28,847,199 | 30,088,804 |
| Administrative and General Expenses | 12,020,482 | 12,262,728 | 12,155,884 | 12,237,982 |
| Depreciation Expense | 21,962,870 | 22,271,032 | 22,300,621 | 22,848,171 |
| Contractual Expenses | 8,025,390 | 7,305,984 | 7,222,398 | 7,704,660 |
| Retiree Supplemental Annuities/Health care costs | 3,763,479 | 3,933,180 | 4,112,016 | 4,300,483 |
| Total Operating Expenses | 91,483,090 | 94,694,382 | 97,453,807 | 99,145,822 |
| Earnings (Loss) from Operations | 29,871,519 | 31,882,114 | 35,860,218 | 37,754,430 |
| Interest Income-Bond 2013,2014 Refunding,2016,2017 Refur | 1,350,758 | 1,539,583 | 1,303,222 | 1,387,858 |
| Interest Income-Other Funds | 218,573 | 240,637 | 210,485 | 225,235 |
| Interest Income-SDC | 25,567 | 29,850 | 26,760 | 27,352 |
| Interest Expense-Bond 2013,2014 Refunding,2016,2017 Refur | (52,105,188) | (31,658,860) | (31,188,350) | (34,944,825) |
| Interest Expense-BOG | (67,345) | - | - | - |
| Interest Expense-Commercial Paper | - | - | 280,000 | - |
| AFUDC | (403,640) | (276,930) | (298,049) | (326,206) |
| Amortization of Discount, Premium and Issuance Costs | 38,732,857 | 39,732,857 | 33,430,130 | 8,000,000 |
| Grants & other contributions (net of federal expenditures) | (344,114) | (289,283) | (306,889) | (287,876) |
| Deferred outflows from Pension | - | - | - | - |
| Net Income (Loss) | 38,276,887 | 40,425,808 | 38,316,739 | 11,846,108 |
| INCREASE (DECREASE) in Capital | 38,276,887 | 40,425,808 | 38,316,739 | 11,846,108 |
| BOND DEBT SERVICE | 34,175,188 | 34,229,960 | 48,934,350 | 40,929,625 |
| | | | | 40,935,013 |

GUAM WATERWORKS AUTHORITY

PROPOSED 5-YEAR FINANCIAL PLAN 2020 - 2024

| | Projection | | | |
|---|---------------|---------------|---------------|---------------|
| | 2020 | 2021 | 2022 | 2023 |
| DEBT SERVICE COVERAGE CALCULATION - Section 6.12 | | | | |
| Earnings (Loss) from Operations | 29,871,519 | 31,082,114 | 35,880,218 | 37,754,430 |
| Investment Income-Other funds | 216,573 | 248,637 | 210,495 | 225,235 |
| COLA | 644,877 | 688,520 | 735,117 | 784,867 |
| System Development Charge | (914,984) | (928,304) | (832,508) | (894,661) |
| Depreciation | 21,982,870 | 22,271,032 | 22,300,821 | 22,648,171 |
| Balance Available for Debt Service - Section 6.12 | 51,780,874 | 53,348,999 | 58,273,942 | 60,528,445 |
| Debt Service Coverage (1.25X) - Section 6.12 | 1.52 | 1.56 | 1.42 | 1.48 |
| DEBT SERVICE COVERAGE CALCULATION - PUC Debt Ratio | | | | |
| Balance Available for Debt Service | 51,780,874 | 53,348,999 | 58,273,942 | 60,528,445 |
| Transfer - Reserve for O & M | - | - | - | - |
| Transfer - Reserve for Debt Service | - | - | - | - |
| 2017 Refunding bond savings | - | - | - | - |
| Available for Debt Service - Reserve for Debt Service | 11,217,733 | 11,217,733 | 11,217,733 | 11,217,733 |
| Balance Available for Debt Service - PUC | 62,998,608 | 64,566,733 | 69,491,675 | 71,746,178 |
| Debt Service Coverage (1.75X) - PUC | 1.84 | 1.89 | 1.70 | 1.75 |
| Request | | | | |
| Amount at 1.4 | 51,780,874 | 53,348,999 | 58,273,942 | 60,528,445 |
| Reduced Revenues | \$ 47,845,283 | \$ 47,921,930 | \$ 57,308,050 | \$ 57,308,050 |
| % of revenues | 3.3% | 4.3% | 0.7% | 2.4% |
| CASH FLOW STATEMENT | | | | |
| Net Income (Loss) | 38,276,887 | 40,426,988 | 39,316,739 | 11,844,108 |
| Depreciation & Amortization | 22,366,310 | 22,547,962 | 22,598,670 | 22,874,378 |
| AFUDC | - | - | - | - |
| Principal Payments - Bonds | (8,770,000) | (9,270,000) | (9,745,000) | (10,235,000) |
| Working Capital Change (Increase/Decrease) | (878,321) | (542,131) | (932,330) | (625,422) |
| Principal Payments-BOG | (2,780,652) | - | - | - |
| Transfer to Trust | - | - | - | - |
| Deferred outflows from pension | 344,114 | 269,263 | 308,689 | 287,976 |
| Gross Bond Proceeds | 134,000,000 | - | - | 85,000,000 |
| Deposit to Bond Construction Fund | (108,925,581) | - | - | (69,094,585) |
| Deposit to CAP Interest Fund | (13,400,000) | - | - | (8,500,000) |
| Deposit to Debt Service Reserve Fund | (\$8,994,419) | - | - | (\$5,705,415) |
| Cost of Issuance/Underwriter Discount | (2,080,000) | - | - | (1,700,000) |
| Loss on Refinance Bond/Amortization of Disc. | 403,640 | 276,930 | 298,049 | 326,208 |
| Premium/Issuance Cost | - | - | - | - |
| Revenue/Funded CAPEX | - | - | - | - |
| Bond Reserve Requirement | - | - | - | - |
| System Development Charge | 500,000 | 500,000 | 500,000 | (449,399) |
| Working Capital Reserve for CAPEX/PAYGO | (17,000,000) | (12,400,000) | (17,500,000) | (15,000,000) |
| Working Capital Reserve for O & M | - | - | - | - |
| Working Capital Reserve for Debt Service | (39,732,857) | (39,732,857) | (39,732,857) | (39,732,857) |
| Grants and Contributions | 6,700,000 | 6,700,000 | - | 4,250,000 |
| Transfer from Capitalized Interest Fund | - | - | - | - |
| Prior Year Adjustment & Loss on Asset Disposal/Invy writedown | - | - | - | - |
| Cash Surplus (Deficit) | (570,880) | 776,075 | 1,412,886 | 3,824,247 |
| Beginning Balance | 4,982,086 | 4,391,406 | 5,167,481 | 6,580,167 |
| Ending Balance | \$ 4,391,406 | \$ 5,167,481 | \$ 6,580,167 | \$ 10,404,414 |

FY2020 FY2021 FY2022 FY2023 FY2024
 Total Total Total Total Total

Subtotal By Project
 FY20-FY24

Project Description

GWA Cat GLG Cat Project #

| | | | | | | | | | |
|----|---|---------------|-------|-------|-------|-------|-------|-------|--------|
| PW | 1 | PW 09-09 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| PW | 0 | PW 05-08 | 0,000 | 0,000 | 0,000 | 0,000 | 0,000 | 0,000 | - |
| PW | 1 | PW 09-11 | 27891 | 1000 | 1000 | 1000 | 1000 | 1000 | 30,891 |
| PW | 1 | PW 11-02 | 7500 | 0 | 0 | 0 | 0 | 0 | 7,500 |
| PW | 1 | PW 12-04 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| PW | 1 | PW 12-05 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| PW | 1 | PW 12-06 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| PW | 1 | MP-PW-Tank-22 | 6500 | 0 | 0 | 0 | 0 | 0 | 6,500 |
| PW | 1 | MP-PW-Tank-23 | 150 | 0 | 0 | 0 | 0 | 0 | 150 |
| WW | 1 | WW 11-03 | 200 | 200 | 214 | 214 | 214 | 214 | 1,042 |
| WW | 1 | WW 11-08 | 0 | 550 | 0 | 0 | 0 | 0 | 550 |
| WW | 1 | WW 12-01 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| WW | 1 | WW 12-07 | 0 | 0 | 0 | 0 | 0 | 0 | - |

Subtotal GCG Cat #1 "Court Order Projects" 42,241 1,750 1,214 1,214 214 46,833

| | | | | | | | | | |
|------|---|----------------|------|------|------|------|------|------|--------|
| WW | 2 | WW 05-04 | 150 | 0 | 0 | 0 | 0 | 0 | 150 |
| WW | 2 | WW 09-01 | 1200 | 1000 | 0 | 2000 | 2000 | 2291 | 6,491 |
| WW | 2 | WW 09-06 | 2000 | 2000 | 0 | 2000 | 2000 | 2000 | 8,000 |
| WW | 2 | WW 17-02 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| WW | 2 | MP-WW-Pipe-01 | 170 | 2000 | 5346 | 750 | 6186 | 6186 | 14,452 |
| WW | 2 | MP-WW-Pipe-02 | 0 | 0 | 411 | 3218 | 0 | 0 | 3,629 |
| WW | 2 | MP-WW-Pipe-03 | 2340 | 0 | 0 | 0 | 0 | 0 | 2,340 |
| WW | 2 | MP-WW-Pipe-04 | 657 | 0 | 0 | 0 | 0 | 0 | 657 |
| WW | 2 | MP-WW-Pipe-05 | 0 | 0 | 169 | 2500 | 0 | 0 | 2,669 |
| WW | 2 | MP-WW-Pipe-06 | 0 | 0 | 0 | 0 | 0 | 1169 | 1,169 |
| WW | 2 | MP-WW-Pipe-11 | 0 | 0 | 0 | 0 | 0 | 571 | 571 |
| WW | 2 | MP-WW-Pipe-12 | 0 | 0 | 0 | 0 | 0 | 47 | 47 |
| WW | 2 | MP-WW-Pipe-17 | 400 | 1300 | 2574 | 0 | 0 | 0 | 4,274 |
| WW | 2 | MP-WW-Pipe-21 | 0 | 0 | 0 | 0 | 0 | 320 | 320 |
| WW | 2 | MP-WW-Pipe-24 | 0 | 0 | 0 | 0 | 0 | 207 | 207 |
| WW | 2 | MP-WW-Pipe-25 | 0 | 2000 | 0 | 250 | 0 | 0 | 2,250 |
| WW | 2 | MP-WW-Pipe-26 | 813 | 0 | 0 | 0 | 0 | 0 | 813 |
| WW | 2 | MP-WW-MH-01 | 350 | 0 | 350 | 0 | 350 | 0 | 1,050 |
| WW | 2 | MP-WW-FM-01 | 0 | 100 | 1458 | 0 | 120 | 0 | 1,678 |
| WW | 2 | MP-WW-FM-02 | 0 | 200 | 1829 | 0 | 0 | 0 | 2,029 |
| WW | 2 | MP-WW-FM-03 | 2124 | 0 | 0 | 0 | 0 | 0 | 2,124 |
| WW | 2 | MP-WW-FM-04 | 6689 | 0 | 0 | 0 | 0 | 0 | 6,689 |
| WW | 2 | MP-WW-Pump-01 | 2120 | 6500 | 982 | 6124 | 2420 | 0 | 18,146 |
| WW | 2 | MP-WW-Pump-02 | 7923 | 3000 | 0 | 0 | 0 | 0 | 10,923 |
| WW | 2 | MP-WW-Pump-03 | 1301 | 0 | 0 | 0 | 0 | 0 | 1,301 |
| WW | 2 | MP-WW-WWTP-08 | 0 | 7500 | 7800 | 0 | 0 | 0 | 15,300 |
| WW | 2 | MP-WW-Misc-01B | 100 | 0 | 100 | 0 | 200 | 0 | 400 |
| WW | 2 | MP-WW-Misc-02 | 150 | 0 | 0 | 400 | 0 | 0 | 550 |
| WW | 2 | DoD-01 | 2500 | 0 | 0 | 0 | 0 | 0 | 2,500 |
| MISC | 2 | MP-Gen-Misc-08 | 1000 | 500 | 200 | 200 | 500 | 500 | 2,400 |

| GWA Cat | CGC Cat | Project # | Project Description | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | Subtotal By Project |
|--|---------|-----------|---------------------|--------|--------|--------|--------|--------|---------------------|
| Total | Total | Total | Total | Total | Total | Total | Total | Total | FY20-FY24 |
| Subtotal GCG Cat = 2 "Consent Decree Projects" | | | | 31,987 | 26,100 | 21,219 | 17,442 | 16,381 | 113,129 |

| | | | | | | | | | |
|-------------------------------------|---|---------------|---|-------|-------|--------|--------|--------|--------|
| PW | 3 | PW 05-09 | Leak Detection | 0 | 500 | 0 | 0 | 100 | 800 |
| PW | 3 | PW 05-10 | Potable Water System Planning | 0 | 500 | 0 | 0 | 0 | 500 |
| PW | 3 | PW 09-03 | Water Distribution System Pipe Replacement and Upgrades | 500 | 1000 | 2250 | 1750 | 2250 | 7,750 |
| PW | 3 | PW 14-01 | Fire Hydrant Replacement Program | 0 | 0 | 500 | 0 | 500 | 1,000 |
| PW | 3 | MP-PW-Pipe-01 | Astumbo Zone Piping | 0 | 0 | 368 | 4482 | 0 | 4,850 |
| PW | 3 | MP-PW-Pipe-04 | Hyundai Well Piping | 500 | 0 | 0 | 0 | 0 | 500 |
| PW | 3 | MP-PW-Pipe-05 | Kaiser Zone Looping | 300 | 0 | 0 | 0 | 0 | 300 |
| PW | 3 | MP-PW-Pipe-06 | Mangilao Pressure Zone Realignment | 300 | 0 | 0 | 0 | 0 | 300 |
| PW | 3 | MP-PW-Pipe-07 | Mataguac BPS Suction Piping | 0 | 500 | 0 | 0 | 0 | 500 |
| PW | 3 | MP-PW-Pipe-09 | Yigo, Santa Rosa Zone Realignment | 0 | 0 | 178 | 2164 | 0 | 2,342 |
| PW | 3 | MP-PW-Pipe-10 | Miscellaneous Piping Projects | 100 | 100 | 694 | 0 | 0 | 894 |
| PW | 3 | MP-PW-Pipe-11 | Miscellaneous Piping Connections | 100 | 100 | 194 | 0 | 0 | 394 |
| PW | 3 | MP-PW-Pipe-12 | Rehabilitation and Replacement Program | 1000 | 1000 | 2500 | 3400 | 2000 | 9,800 |
| PW | 3 | MP-PW-Pipe-13 | 2-Inch Pipe Replacement Program | 2730 | 1200 | 1750 | 1750 | 1750 | 9,180 |
| PW | 3 | MP-PW-Pipe-14 | Asbestos Cement Pipe Replacement Program | 0 | 0 | 3850 | 3850 | 3850 | 11,550 |
| PW | 3 | MP-PW-Pipe-15 | PRV Rehab and Replacement | 1000 | 1450 | 1000 | 1468 | 1468 | 6,386 |
| PW | 3 | MP-PW-Pipe-16 | Valve Exercise, Repair, and Replacement Program | 250 | 0 | 250 | 0 | 250 | 750 |
| PW | 3 | MP-PW-Pipe-17 | Cross Island Highway Piping | 0 | 100 | 1401 | 0 | 0 | 1,501 |
| PW | 3 | MP-PW-BPS-01 | Rehabilitate and Replace BPS | 409 | 150 | 150 | 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 | 2,852 |
| 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 "NRW Projects" | | | | 7,987 | 6,850 | 16,785 | 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 | 380 | 0 | 0 | 380 |
| PW | 4 | MP-PW-SWTP-02 | Ugum SWTP Intake Modifications | 1000 | 0 | 174 | 0 | 0 | 1,174 |
| PW | 4 | MP-PW-SWTP-03 | Ugum SWTP Reliability Improvements | 1000 | 0 | 150 | 0 | 0 | 1,150 |
| PW | 4 | MP-PW-SWTP-04 | Ugum SWTP 7-Year Improvement Project | 0 | 0 | 0 | 0 | 3168 | 3,168 |
| PW | 4 | MP-PW-Well-05 | Wellhead Protection Program | 350 | 0 | 0 | 660 | 0 | 1,010 |
| PW | 4 | MP-PW-Well-06 | Well Repair Program | 500 | 250 | 1500 | 1274 | 1274 | 4,798 |
| PW | 4 | DoD-3 | Rehabilitation and New NGLA Monitoring Wells | 4000 | 0 | 0 | 0 | 0 | 4,000 |
| WW | 4 | MP-WW-Pipe-27 | Septic/Cesspool System Reduction Program | 0 | 0 | 350 | 3000 | 5238 | 8,588 |
| WW | 4 | MP-WW-WWTP-04 | Pago Socio WWTP Pump Station Conversion | 0 | 0 | 1700 | 1000 | 0 | 2,700 |
| WW | 4 | MP-WW-WWTP-09 | Ocean Outfall Inspection Program | 150 | 0 | 0 | 0 | 0 | 150 |
| WW | 4 | MP-WW-Misc-03 | Miscellaneous Wastewater Improvements | 0 | 200 | 1500 | 1000 | 0 | 2,700 |
| WW | 4 | MP-WW-Misc-04 | Fats, Oils, and Grease Study | 150 | 0 | 0 | 0 | 0 | 150 |
| MISC | 4 | MC 05-01 | Laboratory Modernization | 0 | 0 | 0 | 0 | 0 | 0 |
| MISC | 4 | MP-Gen-Misc-09 | Security and Resilience Program | 100 | 100 | 200 | 100 | 100 | 600 |
| Subtotal GCG Cat = 4 "Env-Safety Compliance Projects" | | | | 7,250 | 1,050 | 6,854 | 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 |

| GWA Cat | GCG Cat | Project # | Project Description | FY2020 | | FY2021 | | FY2022 | | FY2023 | | FY2024 | | Subtotal By Project FY20-FY24 |
|--|---------|-----------------|--|---------------|--------------|--------------|---------------|---------------|--------|--------|-------|--------|-------|----------------------------------|
| | | | | Total | Total | Total | Total | Total | Total | Total | Total | Total | Total | |
| PW | 5 | PW 05-15 | Rehabilitation of Asan Springs | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 550 |
| PW | 5 | PW 09-02 | Water Wells | 1500 | 1400 | 0 | 0 | 2000 | 0 | 0 | 0 | 0 | 0 | 4,900 |
| PW | 5 | MP-PW-Well-03 | Capacity Enhancement – Well Exploration Program | 0 | 0 | 0 | 500 | 0 | 1188 | 0 | 0 | 0 | 0 | 1,688 |
| PW | 5 | MP-PW-Well-04 | Capacity Enhancement – Well Development and Construction Program | 0 | 0 | 0 | 379 | 4622 | 0 | 0 | 0 | 0 | 0 | 5,001 |
| WW | 5 | WW 17-01 | Wastewater Sewer System Expansion | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| WW | 5 | DoD-02 | Northern Systems Wastewater System | 6000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6,000 |
| MISC | 5 | MC 09-01 | General Plant Improvements / Water | 0 | 100 | 500 | 800 | 1000 | 1000 | 1000 | 1000 | 1000 | 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 | 0 | 0 | 0 | 0 | 0 | 4,200 |
| PW | 6 | PW 05-07 | Meter Replacement Program | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| PW | 6 | PW 05-12 | Brigade II (Ugum Lift) BPS Upgrade | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| PW | 6 | PW 05-16 | Master Meters | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| PW | 6 | PW 09-04 | Pressure Zone Realignment / Development 2005 Improvements | 561 | 0 | 0 | 0 | 0 | 650 | 0 | 0 | 0 | 0 | 1,211 |
| PW | 6 | PW 12-01 | Water Audit Program & Water Loss Control Plan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| PW | 6 | MP-PW-Pipe-02 | Route 1 Astumbo Zone Piping | 0 | 0 | 0 | 545 | 3324 | 0 | 0 | 0 | 0 | 0 | 3,869 |
| PW | 6 | MP-PW-Pipe-03 | Harmon Cliffline Piping to Route 1 | 0 | 0 | 0 | 0 | 424 | 0 | 0 | 0 | 0 | 0 | 424 |
| PW | 6 | MP-PW-Pipe-08 | Nimitz Lower BPS Piping | 0 | 0 | 0 | 0 | 121 | 1469 | 0 | 0 | 0 | 0 | 1,590 |
| PW | 6 | MP-PW-BPS-03 | Route 15 BPS | 0 | 0 | 0 | 0 | 0 | 86 | 0 | 0 | 0 | 0 | 86 |
| PW | 6 | MP-PW-Well-01 | Well Rehabilitation Program | 400 | 3500 | 2308 | 5368 | 440 | 12,016 | 0 | 0 | 0 | 0 | 22,518 |
| PW | 6 | MP-PW-Well-02 | Well Equipment Overhaul Program | 0 | 0 | 1000 | 0 | 1518 | 0 | 0 | 0 | 0 | 0 | - |
| WW | 6 | WW 09-11 | WWTP Priority 1 Upgrades | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| EE | 6 | EE 09-02 | Electrical Upgrade - Water Wells | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| EE | 6 | EE 09-04 | Electrical Upgrade - Water Booster | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| EE | 6 | EE 09-05 | Electrical Upgrade - Other Water | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 |
| EE | 6 | EE 09-07 | SCADA Improvements - Phase 2 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| EE | 6 | EE 09-08 | SCADA Improvements - Phase 3 | 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 |
| EE | 6 | EE 09-09 | SCADA Improvements - Phase 4 | 0 | 0 | 0 | 0 | 0 | 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 | 0 | 0 | 0 | 0 | 26,000 |
| EE | 6 | MP-Gen-EE-02 | SCADA Implementation Phase B - Additional Sites | 0 | 0 | 0 | 0 | 600 | 600 | 0 | 0 | 0 | 0 | 1,200 |
| EE | 6 | MP-Gen-EE-04 | SCADA System Improvement Program | 0 | 0 | 0 | 0 | 0 | 330 | 0 | 0 | 0 | 0 | 330 |
| MISC | 6 | MC 15-01 | Information Technology Integration Improvements | 0 | 100 | 500 | 500 | 500 | 1,800 | 0 | 0 | 0 | 0 | 3,800 |
| MISC | 6 | MP-Gen-Misc-01 | GWA Systems Planning | 700 | 500 | 100 | 250 | 1000 | 2,850 | 0 | 0 | 0 | 0 | 5,250 |
| MISC | 6 | MP-Gen-Misc-04 | Information Technology Improvements | 5400 | 200 | 100 | 100 | 200 | 6,000 | 0 | 0 | 0 | 0 | 6,500 |
| MISC | 6 | MP-Gen-Misc-05 | GWA Infrastructure Improvements | 500 | 2000 | 0 | 250 | 0 | 2,750 | 0 | 0 | 0 | 0 | 3,450 |
| MISC | 6 | MP-Gen-Misc-07 | Mobile Equipment Replacement Program | 800 | 200 | 100 | 100 | 400 | 1,600 | 0 | 0 | 0 | 0 | 2,500 |
| Subtotal GCG Cat = 6 "Efficiency Projects" | | | | 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 | 0 | 0 | 0 | 0 | 0 | 200 |
| PW | 7 | MP-PW-Misc-04 | OneGuam Program | 50 | 50 | 50 | 50 | 50 | 250 | 0 | 0 | 0 | 0 | 500 |
| MISC | 7 | MP-Gen-Misc-02A | WRMP Update (Comprehensive Update) | 0 | 0 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 200 |
| MISC | 7 | MP-Gen-Misc-02B | WRMP Update (Interim Update) | 200 | 0 | 0 | 0 | 0 | 200 | 0 | 0 | 0 | 0 | 400 |
| MISC | 7 | MP-Gen-Misc-03 | Surveying and Property Delineation | 0 | 250 | 250 | 250 | 0 | 750 | 0 | 0 | 0 | 0 | 1,500 |
| MISC | 7 | MP-Gen-Misc-06 | GPWA Fleet Maintenance Facility | 0 | 0 | 500 | 0 | 0 | 500 | 0 | 0 | 0 | 0 | 1,000 |
| Subtotal GCG Cat = 7 "Discretionary Projects" | | | | 450 | 300 | 900 | 300 | 50 | | | | | | 2,000 |

| FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | Subtotal By Project FY20-FY24 |
|---------|--------|--------|--------|--------|----------------------------------|
| Total | Total | Total | Total | Total | |
| 42,241 | 1,750 | 1,214 | 1,214 | 214 | 46,847 |
| 31,987 | 26,100 | 21,219 | 17,442 | 16,381 | 135,551 |
| 7,987 | 6,850 | 16,789 | 20,718 | 14,022 | 72,797 |
| 29,859 | 12,650 | 18,841 | 27,614 | 27,135 | 136,454 |
| 112,074 | 47,350 | 58,063 | 66,988 | 57,752 | 342,227 |

GWA Cat GCG Cat Project # Project Description

Subtotal GCG Cat = 1 "Court Order Projects"
 Subtotal GCG Cat = 2 "Consent Decree Projects"
 Subtotal GCG Cat = 3 "NRW Projects"
 Subtotal "All Other Projects"

Grand Totals by Year

Presentation to GPUC Docket #19-08 Workshop

Georgetown Consulting Group, Inc.

February 19, 2020

Ex. 2

Docket #19-08 GWA Rate Proceeding Overview

- This briefing provides an overview key provisions of the rate proceeding and the GCG's analysis of the issues
- GWA and GCG have reached a Stipulation of major rate case issues in this proceeding saving the expense and time to litigate a contested hearing and arriving at a reasonable end-result for GWA, consumers and the Territory
- The Stipulation involves by necessity give and take by all Parties in arriving at stipulated positions
- It should be recognized the proceeding is extremely complex involving many inter-related and multifaceted technical and financial issue
- These issues have substantial implications on consumers and GWA in the future
- GCG fully supports the Stipulation and recommends its approval by the Administrative Law Judge ("ALJ") and GPUC.

Procedural Background

- GWA petitioned the GPUC on July 6, 2019 for annual increases in water and wastewater base rates
- The Petition included a five-year Financial Plan and proposed a series of five annual water and wastewater rate increases
- The purpose was to provide financial stability for its enterprises and to comply with an outstanding Court Order and pending Consent Decree and to cover rising O&M expenses, internally financed capital and debt service
- Additionally, the plan included three new debt series issued in 2019, 2022 and 2023.

Procedural Background – cont'd

- The Petition calls for the following across the board to each water and wastewater rate increases:
 - 10% in FY2020
 - 8.5% in FY2021
 - 8% in FY2022
 - 6% in FY2023
 - 5% in FY2024
- The cumulative total rate increases in the Petition filed equated to over 44% during the 5-year period. This follows water and wastewater rate increases that have more than doubled since 2009
- Key issues in the proceeding included the magnitude of recurring user rate increases, large debt financings, construction budget prioritization, water loss reduction measures and consumer affordability.

Stipulated Agreement

- On January 17, 2020 GWA and GCG reached a Stipulation. We believe if approved the Stipulation will produce a reasonable end result by:
 - Reducing rate impacts in FY 2020 & FY 2021
 - Requires key studies that will set the input to future rate reviews
 - Substantially reduce the regulatory burden of a disputed evidentiary hearings, and
 - Achieve explicit policy and financial objectives by setting the financial foundation and protocols for future rate proceedings by removing the high degree of uncertainty found in this proceeding

- The Stipulation recommends the ALJ and GPUUC consider and approve FY2020 – 2021 rates as follows:

| Summary | | FY2020 | FY2021 |
|--------------------------------|--|-------------|-------------|
| Base Rate Increase | | 5.0% | 5.0% |
| Labor/Benefit Expense Decrease | | \$2,248,207 | \$1,958,153 |
| Variable O&M Expense Decrease | | \$2,030,877 | \$3,703,629 |
| DSCR – Section 6.12 | | 1.52 | 1.56 |

Stipulated Agreement—cont'd

- The Stipulation recommends the 5.0% FY2020 rate increase be effective upon GPUUC issuing a final order in Docket #19-08 and the 5.0% FY 2021 rate increase take effect on October 1, 2020.
- All FY2020 – 2021 rates are to be applied across-the-board to all rate classes with no change in the lifeline rates during FY2020 or FY2021.
- No discrete user rates are being recommended for implementation for FY 2022-2024

The Analytical Studies

- The Stipulation calls for completing a number of Analytical Studies that will be used to reduce the uncertainty in many of the input assumptions for use in the determination of future rates including:
- Providing the GPUC a complete rate study incorporating not only a financial plan but a cost of service analysis inclusive of alternative rate designs;
- Improvements to the operational efficiency of the water system necessary to reduce extraordinarily large water loss levels in accordance with a defined loss reduction program targeting specific improvements;
- Design and implementation of a “targeted” low-income affordability program and/or rate design alternatives that can be implemented no later than FY 2022;
- Potential revenue enhancements to the wastewater enterprise allowing greater utilization of capital invested and the cost of supporting O&M;

The Analytical Studies – cont'd

- Providing more financial tools to GWA to provide investment capital needed for its CIP's and lessening the rate and financial burdens to consumers;
- Eliminating the high cost paid for Navy supplemental water – that comes at a much higher cost than GWA's average production cost of water; and
- Reducing the level of uncertainty in GWA projections for rate case variables like KGal water sales, water losses, KGal water production, electric power and chemical expenses, labor and labor-related expenses, minimum fund balances and annual debt service coverage ratios.

Rate Study

- Docket # 19-08 rate proceeding is truly non-traditional. It was not undertaken in accordance with the generally accepted principles employed by most regulatory jurisdictions
- Foremost deficiency was the lack of a complete rate study – only a financial plan was presented to the GPUC. Specifically missing was a cost of service (COS) analysis and corresponding rate design analysis
- No distinction is made for differences in invested capital for the water and waste-water enterprises or user characteristics such as levels of service related to volumes of peak and non-peak demand, infrastructure capacity, and customer service
- A typical utility rate filing presented to a regulatory jurisdiction, such as GPUC, includes a rate study that is comprised of three key components. These components are a:
- The missing “Cost-of-Service Analysis” allocates the revenue requirements determined in the Financial Plan to the correct enterprise (water or wastewater). Then to the correct customer class of each utility in compliance with regulatory and water industry standards and applicable law. This is critical from an equity perspective

Rate Study - cont'd

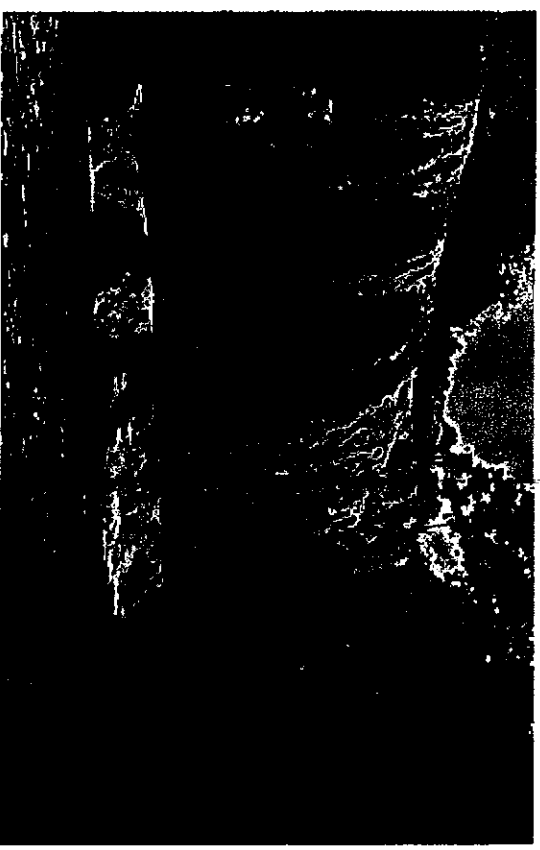
- For water and wastewater systems allocated cost are generally “classified” into four categories: commodity, capacity, customer and fire protection.
- Costs contained in the Financial Plan are allocated to these cost causation components that form the basis for establishing fixed and variable rates.
- From a financial stability perspective, utilities should recover all of their fixed costs from fixed user charges and all of their variable costs from volumetric user charges. When this is the case, fluctuations in water sales revenues are directly offset by reductions or increases in variable expenses providing the greatest revenue stability for the utility.
- The final component is the Rate Design Analysis that evaluates different rate design alternatives that may be available for implementation. It provides the opportunity to incorporate rate design objectives and policies, including revenue stability, equity among customer classes, low-income affordability measures and water conservation.

Water Loss Reduction Program

- The impact of GWA exceedingly high level of water losses cannot be understated. The filing did not present a defined water loss reduction program for reducing water loss levels
- Water losses remain at an unacceptably high level of 55% of GWA water produced and purchased
- This cannot be left on the back burner. It is perhaps the single most critical issue confronting GWA – certainly from an economic efficiency standpoint.
- GWA in a 2011 Stipulation and GPUJ Order agreed it would focus greater attention on water losses and undertake a more aggressive program to reduce water losses which at the time where in the range of 55% - approximately the same as today. This did not happen.
- GCG estimates that today excessive water losses (above 20%) are costing consumers in excess of \$10 - \$12 million annually just in terms of the variable cost of water system operations

Water Loss Reduction Program –cont'd

Not included in the \$10 - \$12 million annual value is the annual carrying (fixed) cost for the additional investments that have been made and continue to be made in the substantial over-sizing of water production and treatment facilities, reservoir storage and delivery facilities.



In this Stipulation, GWA commits to advance and expand water loss reduction measures and to formally implement an identifiable program to fund aggressive water loss reduction measures resulting in no less than a 20% loss reduction from FY2019 levels by FY2024.

Targeted Affordability Program

- In Guam water and wastewater utility user rates have been rising at a much faster rate than the Consumer Price Index or median household income imposing greater stress on household finances.
- One measure of affordability is the EPA Residential Indicator that compares average household utility costs to median household income; the threshold is 2 % for water and 2 - 2.5 % for wastewater, or 4% - 4.5 % a combined utility.
- As defined, the affordability of water and wastewater utility services is an issue to many on Guam and is currently addressed by the existing lifeline rate mechanism
- The problem is that this rate mechanism is not targeted and as applied is applicable to all residential consumers.

Targeted Affordability Program – cont'd

- The Stipulation requires that GWA prepare an evaluation of Guam household water and wastewater utility affordability, prepare Financial Capability Assessment and requires recommendations concerning affordability alternatives be presented for consideration to the GPUC by March 31, 2021.
- Also, required is that in conjunction with the COS, GWA prepare an evaluation of options to address low-income water affordability challenges through both the design of a Customer Assistance Program and/or revisions of its current residential lifeline rate structure.

Revenue Enhancements

- Capital invested in the wastewater system is underutilized.
- GWA has committed to examine wastewater system revenue enhancement activities by focusing on the statutory objectives of Title 10, Chapter 48, Toilet Facilities and Sewage Disposal.
- Under Title 10, Chapter 48, all residential facilities with septic or cesspool systems within 200 ft. of an existing GWA sanitary sewer line or 1000 ft. of a GWA water well require that specific actions to be taken by to connect these structures to the existing GWA wastewater system.
- It is estimated there are approximately 14,000 more water customers than wastewater customers on the GWA system.
- The number is unknown, but potentially there exist a large number of structures meeting the Title 10, Chapter 48 criteria. The Stipulation requires GWA determine the number of structures impacted, potential GWA and consumer investments, potential sources for funding and revenue impacts

Revenue Enhancements –cont'd

- The Stipulation requires GWA to consider alternative funding mechanisms to assist consumers in connecting to the wastewater system including use of System Development Charge (“SDC”) funds to increase the funding available in the existing wastewater connection revolving fund
- Currently the authority to enforce this statutory requirement rest with another GovGuam agency. This is an impediment, but GWA will explore potential remedies such as a legislatively approved transfer of regulatory authority

Alternative Capital Financial Instruments

- The Stipulation provides that GWA pursue the authorizations to use alternative financial instruments to lessen the economic burdens to Guam consumers. These alternative financing vehicles will include:
 - Use of alternative debt instruments with lower costs such as letters-of-credit or surety bonds to fund the required debt service reserve fund associated with the issuance of long-term bonds.
 - Use of commercial paper or lines-of-credit to finance its ongoing capital construction program deferring the need to issue additional long-term bonds.
- GCG estimates that by use of these alternative financing vehicles GWA from the beginning of the five-year period could achieve an annual savings to consumers of \$1.3 million per year
- Under the Stipulation GWA will be pursuing the legislative and other actions necessary to evaluate and seek legislative and other authorizations to put in place these tools.
- The objective is to have these financial instruments in place for use beginning in FY 2022.

Navy Water Purchases

- Navy water purchases represents about 10% of GWA's annual operating costs, but only 5% of GWA's total water production
- Purchases costs GWA approximately 2.5 times GWA's average water production cost less purchased water.
- While the current agreement between GWA and Navy has expired; the parties are continuing to operate under its provisions.
- GWA anticipates purchase approximately 5% of its water production needs to meet water demand through FY 2024.
- The Stipulation requires GWA will use its best efforts to enter into a "water exchange" program with Navy. Water exchange programs are very common in the water industry and are beneficial to all parties involved in an exchange.
- Entering into a water exchange program would bring the cost of water via an exchange program down to GWA's average cost of water production.
- GCG estimates this would result in a savings to GWA consumers of approximately \$5.4 million annually.

Staffing Study

- Guam statutes require preparing studies comparing the staffing pattern and manpower levels of GWA to the staffing patterns and manpower levels of at least four (4) mainland utilities providing similar services.
- GCG conducted an initial staffing review compared to a large cross-section of water utilities and found that GWA is an outlier having a greater manpower level when compared directly to this cross-section of mainland water/wastewater utilities.
- GCG does not believe a comparison to mainland water systems is relevant. Most are part of city or county governments wherein the utility is provided services such as IT, procurement, HR, finance, joint purchasing of insurance and other services from the county or municipal government.
- A realistic comparison is 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.
- A staffing study based on isolating the functional operations of utilities similar to GWA is proposed to be conducted. This is an exhaustive approach that can take into account many of the unique issues of GWA.

Data Uncertainty

- There exists uncertainty concerning a number of the underlying assumptions and data upon which these assumptions are based, and the Stipulation addresses these shortcomings
- Certain analytical studies are prerequisites to fulfilling the information requirements necessary to better define the revenue requirements projected for FY2022-2024. These include analytical studies associated with water losses and cost allocation measures. In addition, the Stipulation requires:
 - Demand Forecasting – GWA will undertake a comprehensive econometric forecast of water sale volumes (kGal) by customer class using an accepted econometric methodology.
 - Given GWA uses a forward test year this is perhaps the most critical study since it will set the billing determinants for future rate proceedings.
 - The forecast shall consider variables such as: weather, measures of economic activity, population, construction, water appliance efficiency and conservation measures, tourism and others.
 - Capitalized Labor – GWA will be undertaking a review of its current capitalized labor expense protocol. The objective is to bring the existing protocol into conformance with the capitalization policies accepted by mainland regulatory jurisdictions.

Potential policy changes

- GWA and GCG believe it prudent to make certain debt service coverage policy changes.
- These changes are expected to reduce annual revenue requirements benefiting consumers and the Parties have agreed to use best efforts to secure revisions to specific CCU and GPUC policies. Specifically:
 - The CCU policy calling for the funding of a Working Capital and Debt Service Reserve.
 - Revising the GPUC policy setting a minimum 1.75x coverage ratio for GWA rates.
- GWA and GCG have agreed to support the approval of both policy changes inclusive of setting a minimum 1.40x debt service coverage ratio.
- Parties further recommend that as part of CCU and PUC's consideration of alternative debt financing instruments (i.e., commercial paper and a revolving line-of-credit), the GPUC debt service coverage policy be reevaluated.

Wrap - Up

- GCG recommends approval of the January 17, 2020 Stipulation.
- In its February 12, 2020 position statement on the January 17, 2020 Stipulation GWA concludes its report with “We recommend the PUC adopts this Stipulation in full.”
- We understand that in spite of agreeing to the Stipulation GWA would like to modify its implementation setting different rates for FY 2020 and FY 2021.
- However, we call you attention to a simple reading of the Stipulation wherein it states with respect to base rate increases in paragraph 2 that:
- 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 (emphasis added) and for FY 2021 will take effect on October 1, 2020. There will be no change to the “lifeline” rate for FY2020 and FY2021.



Guam Public Utilities Commission
Docket No.: 19-08

Guam Waterworks Authority
Request for Approval of
FY 2020-24 Financial Plan

Ex. 3

- Adequacy of GWA rate application filing
- Request approval of Stipulation filed January 17, 2020
 - Major issues addressed in stipulation
- Request consideration of selected policy and procedural issues

GWA Rate Filing

- Complete rate application filed on July 6, 2019
 - Per PUC Docket No. 00-04
 - Rule 20: Supporting testimony
 - Rule 21: Rate Model providing Schedules A-K (GCG developed)
 - No requirement for econometric demand forecast or cost-of-service analyses
 - Order scheduled to be issued 236 days following GWA rate filing
- Consistent with filings for:
 - PUC approved FY 2014 – 2018 Financial Plan
 - PUC approved FY 2009 – 2013 Financial Plan

Stipulation:

FY 2020–2024 Financial Plan Pro Forma

| No. | Financial Plan Component | Stipulation | GWA Points |
|-----|----------------------------------|---|--|
| 1. | FY 2020 & FY 2021 rate increases | 5% increases to basic charges and non-lifeline rate revenues, no increases to lifeline rates | 8.57 % and 2% increases due to March 2020 effective date |
| 2. | Water sales volumes | No changes to billable volumes | Per GWA rate application |
| 3. | Water loss reduction | Annual reductions in production requirements of 2.0% 2.75% 5.0% 5.0% 5.0% applied cumulatively to forecast FY 2019 production | Water loss reduction targets for FY 2022-24 are subjective and to be adjusted in FY 2022 review |
| 4. | Labor & Benefits expenses | Reduced to reflect lags in filling vacancies and revised labor capitalization rate | Capitalization rate revision is not aligned to audit practice, subject to change with FY 2022 review |
| 5. | Variable expenses | Adjusted based on water loss reduction and calculated variable expenses per unit of volume | Selected variable expense reductions may not be realized in practice |

Stipulation:

Compressed Rate Adjustments

- Required to achieve Financial Plan
- Nominal FY '20 rates of stipulation deprive revenue recovery of approx. \$2.2M
- Consistent with GPUC precedent (and basic arithmetic)

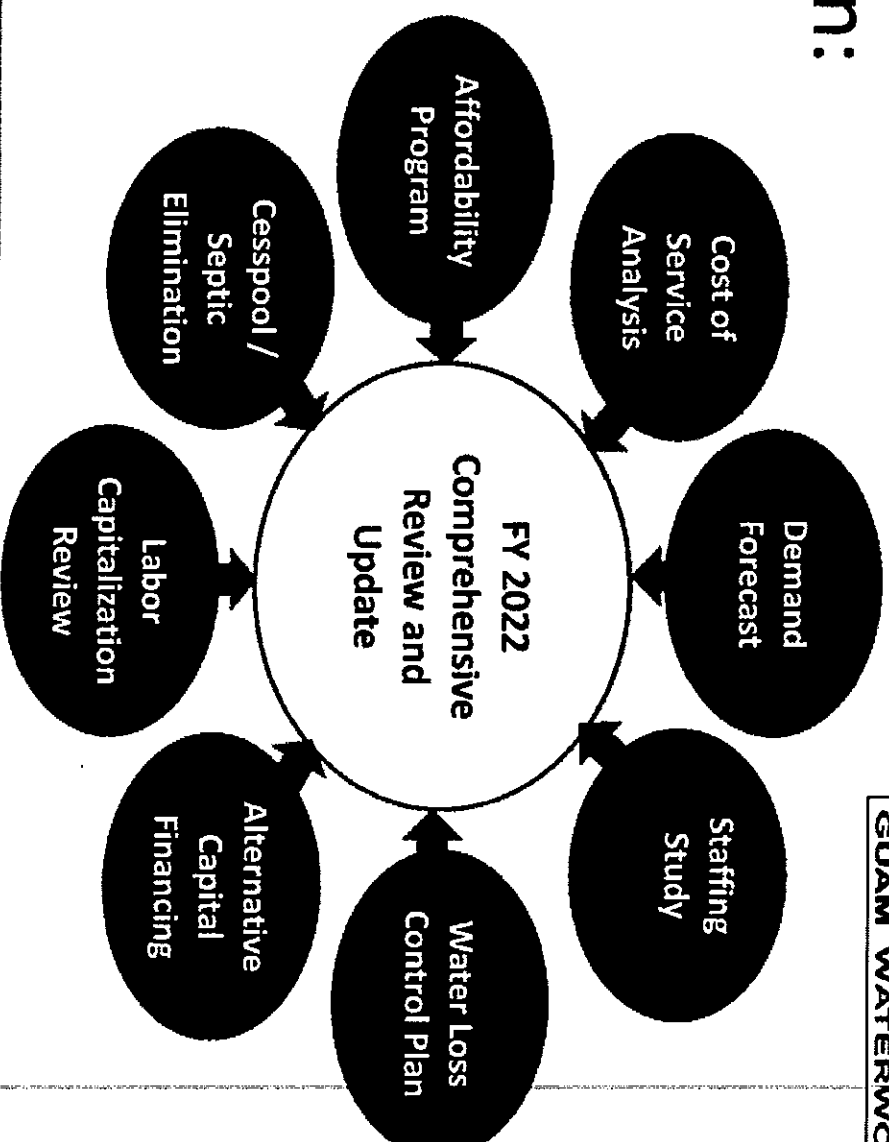
| | Projection | | Projection | |
|---------------------------------|--------------------|--------------------|--------------------|--------------------|
| | STIPULATED RATES | | COMPRESSED RATES | |
| | 2020 | 2021 | 2020 | 2021 |
| Basic Charge - Water | 5.00% | 5.00% | 8.57% | 2.00% |
| Lifeline Increase | 0.00% | 0.00% | 0.00% | 0.00% |
| Non-Lifeline Increase | 3.00% | 5.00% | 8.57% | 2.00% |
| Legislative Surcharge | 3.60% | 3.60% | 3.60% | 3.60% |
| Customer Growth | 0.50% | 0.50% | 0.50% | 0.50% |
| Demand Growth | 0.00% | 0.00% | 0.00% | 0.00% |
| OPERATING REVENUES | 120,007,713 | 125,418,435 | 119,891,457 | 125,798,180 |
| Water Revenues | \$ 73,925,751 | \$ 77,436,674 | \$ 73,836,353 | \$ 77,687,336 |
| Wastewater Revenues | 42,401,836 | 44,115,188 | 42,379,518 | 44,251,571 |
| Legislative Surcharge | 3,680,126 | 3,866,573 | 3,675,586 | 3,879,272 |
| Other Revenues | 431,932 | 430,737 | 431,932 | 430,737 |
| System Development Charge | 914,964 | 929,304 | 914,964 | 929,304 |
| Total Operating Revenues | 121,354,609 | 126,778,476 | 121,238,353 | 127,158,221 |

Stipulation:

FY 2020–2024 Financial Plan – Policy Changes

| No. | CCU / PUC Policy | Stipulation | GWA Points |
|-----|---|---|---|
| 1. | Debt Service Coverage calculation and minimum targets | Assume CCU/PUC approvals of policy revisions in favor of 1.40x minimum target under indenture calculation | Policy changes not required for FY 2020 and FY 2021 rates; revision will align to industry practice |
| 2. | Labor expense capitalization | Assumed increase to 15% rate | Audited financial statements to date have employed lower rates |
| 3. | Principal payment deferral | Revision of 2-year typical capitalized interest structure to also defer principal for 5 years | Payment deferral results in marked increase in debt service in FY 2025 (and limited increase in total cost) |
| 4. | Commercial Paper | Assume availability of instrument by FY 2022 at 2.0% interest rate | Availability of liquidity providers and legislative approvals not assured; admin requirements noteworthy |

Stipulation: Analytical Studies



Stipulation: Major Issues

- **Non-Revenue Water (NRW) management**
 - Subjective GCG prescribed targets in Five-Year Financial Plan
 - GWA initiatives already include added staffing, district metering areas, pressure zone realignment, leak repairs, consultant support, etc.
- **Personnel expenses**
 - Higher labor expense capitalization in Five-Year Financial Plan and reduction of expenses to reflect structural lags in hiring
- **Capital financing**
 - \$134M Series 2020 bond: 5-year principal deferral, 2-year capitalized interest
 - Commercial paper available by FY 2022
 - CCU and PUC policy changes assumed: minimum 1.40x times debt service coverage

Policy and Procedural Issues

- Supported by analytical studies:
 - Capital financing policies
 - Debt service coverage | fund balances | commercial paper
 - Cost allocation and rate design
 - Extent and form of subsidies by customer class, affordability initiatives
 - Scope of GWA regulatory authority
 - Cesspool/septic tank elimination
- Capital program, NRW performance, rate application review procedures
 - Extent and multiplicity of capital project reviews
 - Form and process for review of mandated NRW performance reporting
 - Clarify rate application process to enable 120 day filing to final order period

Selected GCG Concerns

| Subject | GCG Concerns | GWA Comments |
|--|--|--|
| Cited rate application filing deficiencies | No econometric demand forecast, cost-of-service, or rate design analyses | <ul style="list-style-type: none"> Studies not required under GPUC filing requirements Acknowledge that proposed rates are not proportional to cost-of-service allocations |
| Absence of Water Loss Reduction Program filing | <p>Water loss reduction targets of no less than 20% loss reduction over 5 years</p> <p>Annual water loss reduction reporting</p> | <ul style="list-style-type: none"> Reporting on GWA initiatives not required for GPUC rate application Subjective water loss reduction targets w/o benefit of (ongoing) field evaluations |
| Recommended CCU, PUC policy changes and legislative action | <p>Capital financing</p> <ul style="list-style-type: none"> 1.40x debt service coverage Commercial paper program <p>Cesspool / septic tank elimination</p> | <ul style="list-style-type: none"> Accept policy change impacts for stipulation Concerned by assumption of CCU, PUC and legislative approvals for purposes of Five-Year Financial Plan development |

GWA Requests

- PUC approval of Parties' Stipulation
 - Appendix A Pro Forma / Compressed Rates
 - Analytical studies / FY 2022 Comprehensive Review and Update
- PUC consideration of selected policy issues
 - Rate application requirements / procedures for proposed policies
 - Regulatory asset order re: rate case expense
 - PUC role in review of USEPA Consent Decree
 - Options for streamlining multiple capital project reviews

Supplemental Information

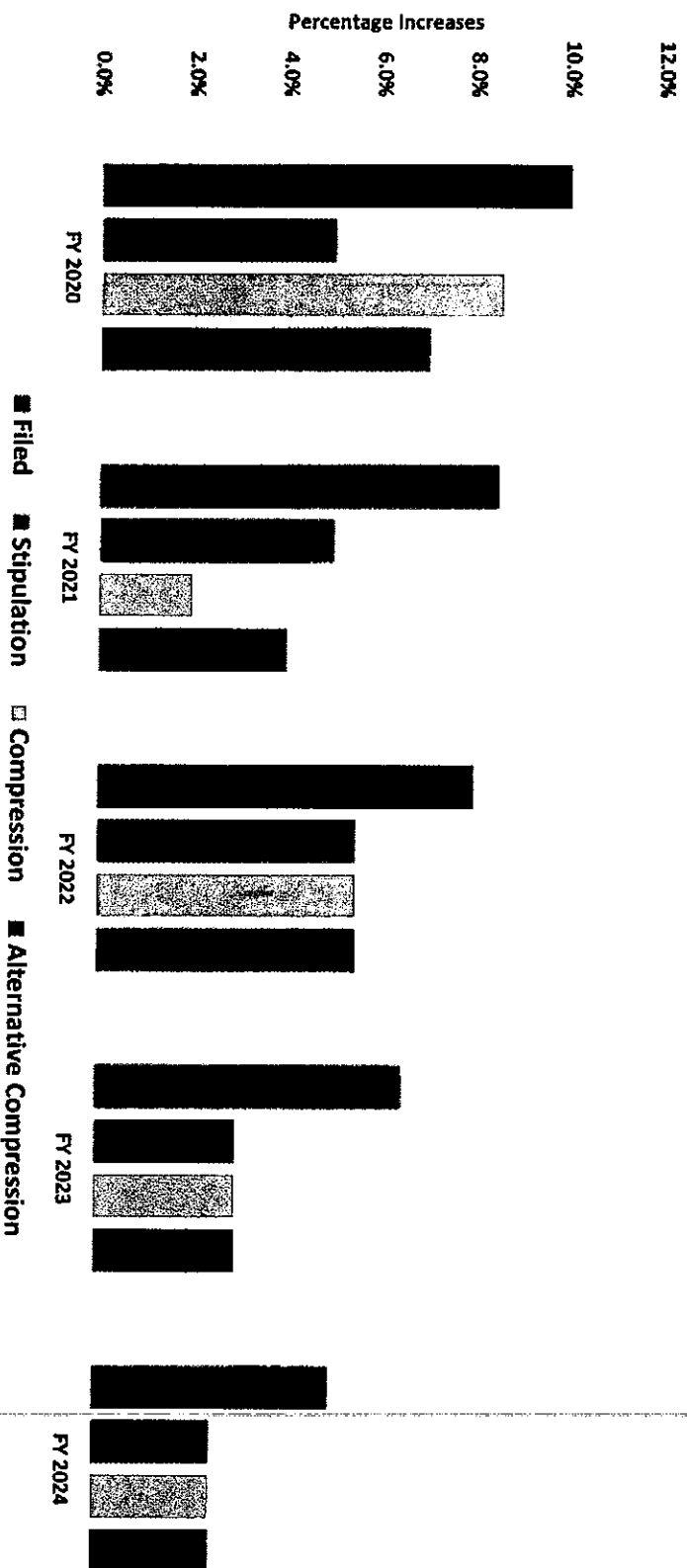
1. Rate Plan Options – Rates & Residential Bills
2. Alternative Rate Compression Option
3. Responses to Commissioner Brooks Questions
4. Schedule A: GWA Petition vs Stipulation
5. Rate Case Timeline
6. Series 2020 Bond Issue – Project Components

Alternative Compressed Rate Option

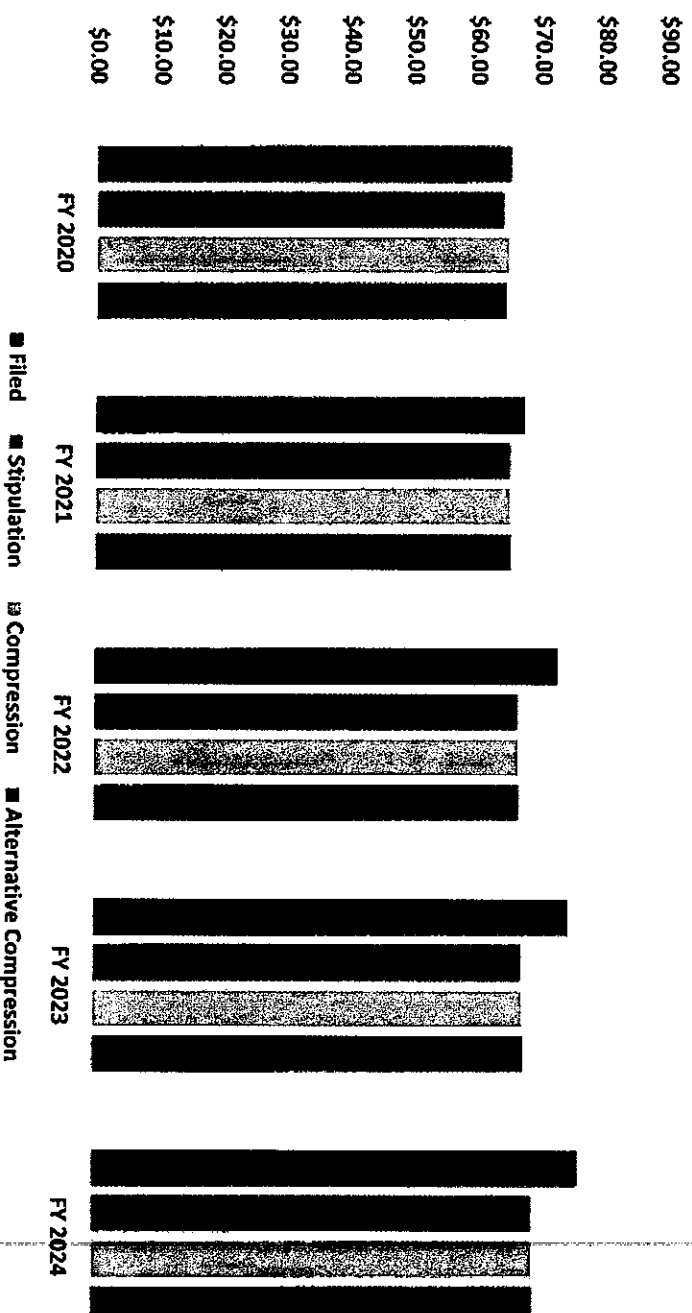
- Provides for recovery of stipulated revenues over FY 2020 – 2021
- Lower FY 2020 ending balance (and debt service coverage)
- No revenue requirement modification
- Without rate compression, GWA deprived of \$2.2 M; effective rate is 2.92%

| | Projection | | Projection | | Projection | |
|---------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | STIPULATED RATES | | COMPRESSED RATES | | ALT COMPRESSED RATES | |
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| Basic Charge -Water | 5.00% | 5.00% | 3.57% | 2.00% | 7.00% | 4.00% |
| Libra Increase | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Non-Libra Increase | 5.00% | 5.00% | 3.57% | 2.00% | 7.00% | 4.00% |
| Legislative Surcharge | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Customer Growth | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0 |
| Demand Growth | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| OPERATING REVENUES | 120,007,713 | 125,418,435 | 119,801,457 | 125,798,180 | 118,987,975 | 126,339,658 |
| Water Revenues | \$ 73,925,751 | \$ 77,436,874 | \$ 73,830,353 | \$ 77,687,336 | \$ 73,238,227 | \$ 78,019,325 |
| Wastewater Revenues | 42,401,836 | 44,115,168 | 42,379,518 | 44,251,571 | 42,088,253 | 44,422,245 |
| Legislative Surcharge | 3,680,126 | 3,866,573 | 3,675,586 | 3,878,272 | 3,643,486 | 3,888,088 |
| Other Revenues | 431,932 | 430,737 | 431,932 | 430,737 | 431,932 | 430,737 |
| System Development Charge | 914,964 | 929,304 | 914,964 | 929,304 | 914,964 | 929,304 |
| Total Operating Revenues | \$ 121,354,609 | \$ 126,778,676 | \$ 121,238,353 | \$ 127,158,221 | \$ 120,314,871 | \$ 127,659,699 |
| Two-Year Revenue Total | \$ 248,133,085 | | \$ 248,396,574 | | \$ 248,014,570 | |
| % Variance From Stipulation | 0.11% | | 0.11% | | -0.05% | |

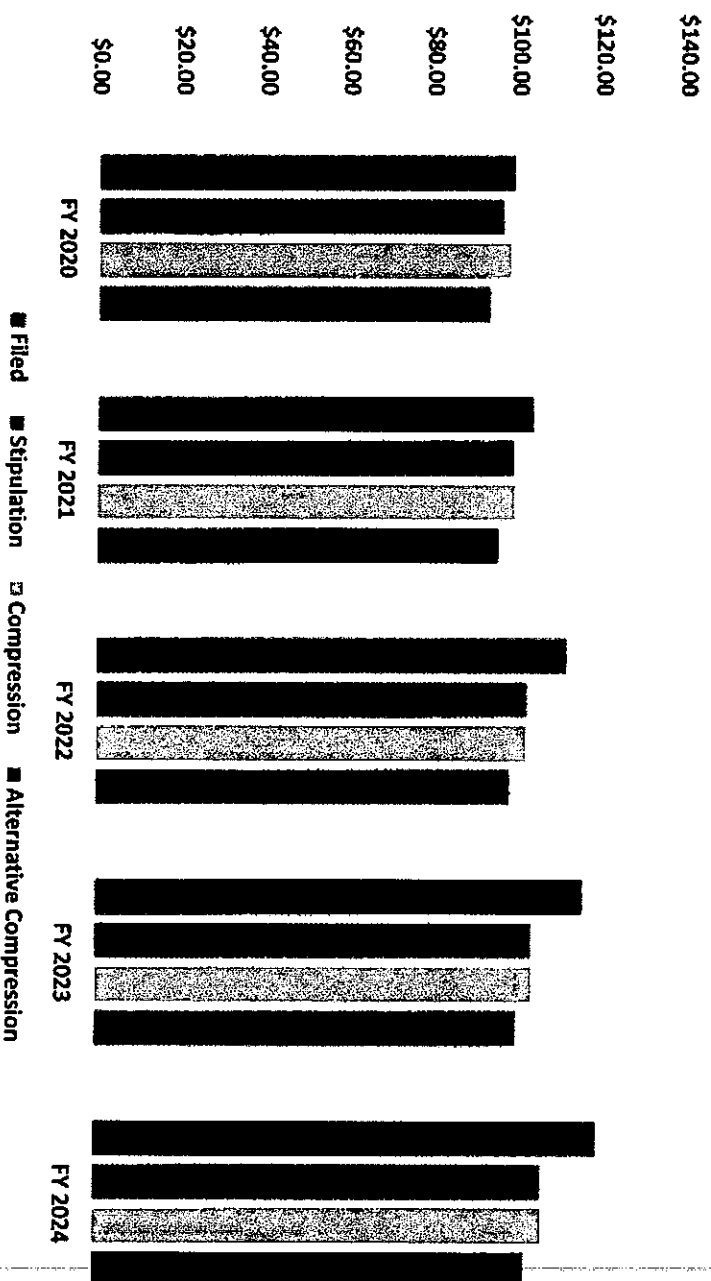
Rate Plan Options Basic Charge and Non-Lifeline Rate Increases FY 2020 - FY 2024



**Guam Waterworks Authority
Residential Bills for 4 kgal User - Rate Plan Options
FY 2020 - FY 2024**



**Guam Waterworks Authority
Residential Bills for 7.5 Kgal User - Rate Plan Options
FY 2020 - FY 2024**



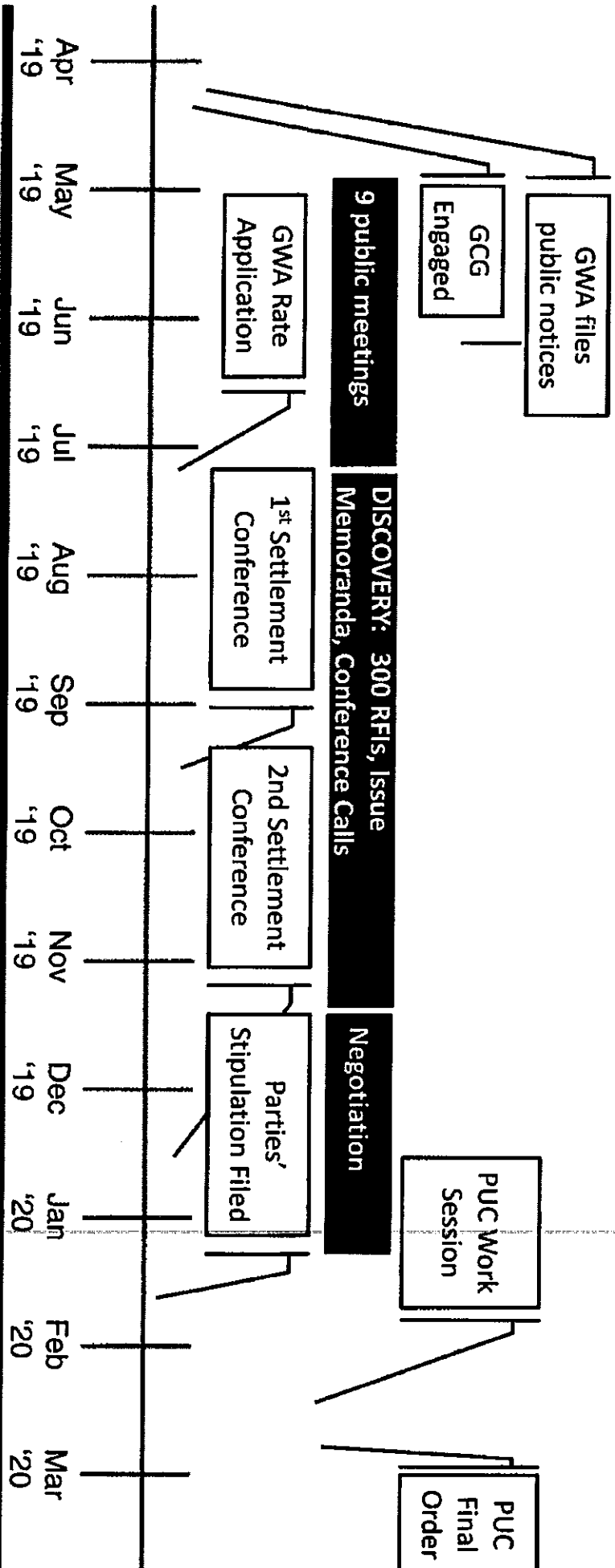
QUESTIONS: Commissioner Brooks



GWA Position Statement of February 12, 2020

| Question Subject | GWA Comments |
|---------------------------------------|--|
| Number of wells | <ul style="list-style-type: none">• Wells were constructed over decades and were installed without current digital aquifer model• Government owned lots do not coincide with maximum production zones of the aquifer• GWA's current program involves finding right locations for best production in new wells, decommissioning older wells when not needed, and placing other wells on standby |
| Number of wastewater treatment plants | <ul style="list-style-type: none">• Guam is isolated; the number dictated by service basins, topography• Many other utilities don't have their own plants; can send to regional /county plants• GWA is not planning for additional plants, will upgrade existing |
| Customer Care Unit Size | <ul style="list-style-type: none">• GWA Customer Service includes meter reading, disconnect/reconnect, etc.• Mobile/Web-based service may reduce need, but Customers still prefer one-to-one interaction |
| OP&B Surcharge | <ul style="list-style-type: none">• Non-cash end-of-year accounting entry; actual expenses budgeted as retiree benefits funded through legislative surcharge (currently approx. \$3.7M) |
| Debt service coverage | <ul style="list-style-type: none">• Rating agency medians available for comparisons of favorably rated credits• PUC mandated coverage using indenture calculation is within range |
| Bond structure | <ul style="list-style-type: none">• Series 2020 bond issue with 2-years capitalized interest and 5-years of deferred principal; Series 2023 with 2-years capitalized interest• Capital financing options review to offer recommendations for post FY 2024. |
| Compressed Rate Arithmetic | <ul style="list-style-type: none">• Rate, revenue generation and bill impact details in supplemental information |

Rate Case Timeline



Petition vs Stipulation Comparison

GWA Petition Schedule A

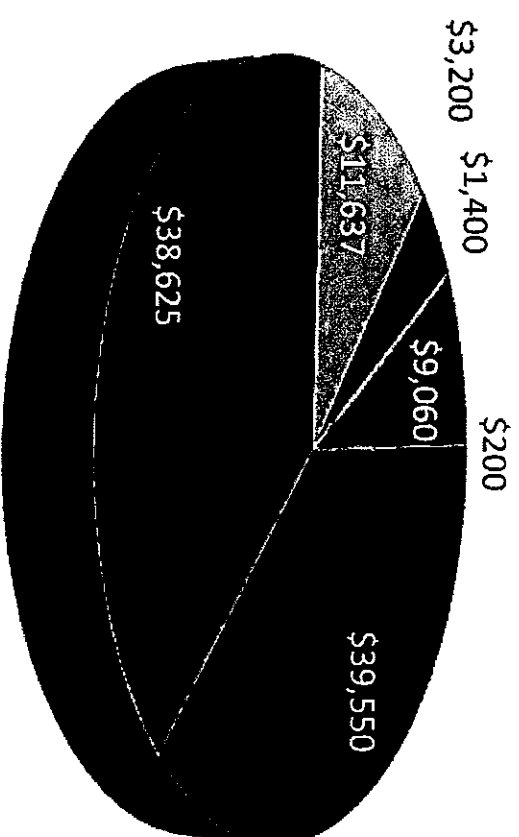
Stipulation Schedule A

| | 2020 | 2021 | 2022 | 2023 | 2024 | 2020 | 2021 | 2022 | 2023 | 2024 |
|--------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Rate Increase at Year | 10.00% | 8.50% | 8.00% | 6.50% | 5.00% | 5.00% | 5.00% | 5.50% | 3.00% | 2.50% |
| Basic Charge -Water | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Lifeline Increase | 10.00% | 8.50% | 8.00% | 6.50% | 5.00% | 5.00% | 5.00% | 5.50% | 3.00% | 2.50% |
| Non-Lifeline Increase | 3.60% | 3.60% | 3.50% | 3.40% | 3.45% | 3.60% | 3.60% | 3.50% | 3.40% | 3.45% |
| Legislative Surcharge | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% |
| Customer Growth | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Demand Growth | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Total Operating Revenues | \$ 126,397,745 | \$ 135,962,760 | \$ 146,643,186 | \$ 155,158,107 | \$ 162,286,363 | \$ 121,354,609 | \$ 126,778,476 | \$ 138,313,225 | \$ 136,900,252 | \$ 140,470,940 |
| Total Operating Expenses | \$ 95,984,695 | \$ 100,618,508 | \$ 103,977,291 | \$ 107,997,963 | \$ 113,857,569 | \$ 91,483,090 | \$ 95,696,362 | \$ 97,453,007 | \$ 99,145,822 | \$ 102,741,110 |
| INCREASE (DECREASE) in Capital | \$ 30,413,050 | \$ 35,344,252 | \$ 42,665,895 | \$ 47,160,144 | \$ 48,428,794 | \$ 29,871,519 | \$ 31,082,114 | \$ 40,960,218 | \$ 37,754,430 | \$ 37,729,830 |
| OND DEBT SERVICE | \$ 34,175,188 | \$ 34,229,950 | \$ 43,204,135 | \$ 43,195,705 | \$ 47,217,036 | \$ 34,175,188 | \$ 34,229,950 | \$ 40,934,350 | \$ 40,929,625 | \$ 40,935,013 |
| SCR (1.25X) - Section 6.12 | 1.53 | 1.68 | 1.51 | 1.62 | 1.54 | 1.52 | 1.56 | 1.42 | 1.48 | 1.51 |
| SCR (1.75X) - PUJC | 1.86 | 2.01 | 1.95 | 2.06 | 2.05 | 1.84 | 1.89 | 1.70 | 1.75 | 1.79 |
| Requested Balance for Debt Svc | | | | | | | | | | |
| Amount at 1.4 | | | | | | \$ 51,780,674 | \$ 53,360,999 | \$ 58,273,942 | \$ 60,520,445 | \$ 61,949,666 |
| Reduced Revenues | | | | | | \$ 47,845,263 | \$ 47,921,930 | \$ 57,308,090 | \$ 57,301,475 | \$ 57,309,018 |
| % of revenues | | | | | | 3.9% | 4.3% | 0.7% | 2.4% | 3.3% |
| Ending Balance | \$ 3,250,272 | \$ 3,759,207 | \$ 4,595,226 | \$ 5,166,846 | \$ 5,733,524 | \$ 4,391,406 | \$ 5,167,481 | \$ 5,580,167 | \$ 10,404,414 | \$ 18,278,850 |

GWA Series 2020 Bond \$134M Par Value

Uses of Funds by Project Category (\$1,000)

| | |
|-----------------------|-------------------|
| Court Order | \$ 39,550 |
| Consent Decree | \$ 38,625 |
| Non-Revenue Water | \$11,637 |
| Env-Safety Compliance | \$ 3,200 |
| Capacity | \$ 1,400 |
| Efficiency | \$ 9,060 |
| Discretionary | \$ 200 |
| TOTAL USES | \$ 103,672 |



- Court Order
- Consent Decree
- Non-Revenue Water
- Env-Safety Compliance
- Capacity
- Efficiency

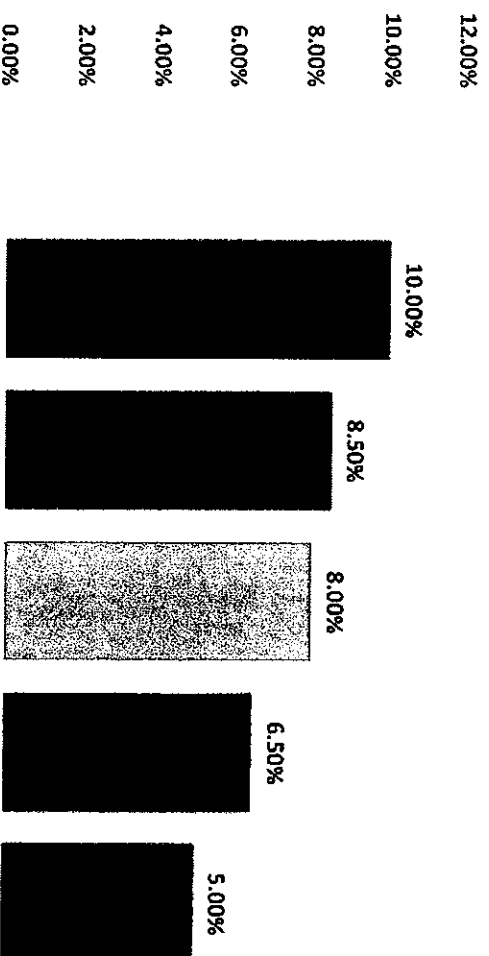
Sample Public Information for Rate Options

1. Filed Application
2. Stipulation
3. Compressed Rates

How will these funding needs affect service rates

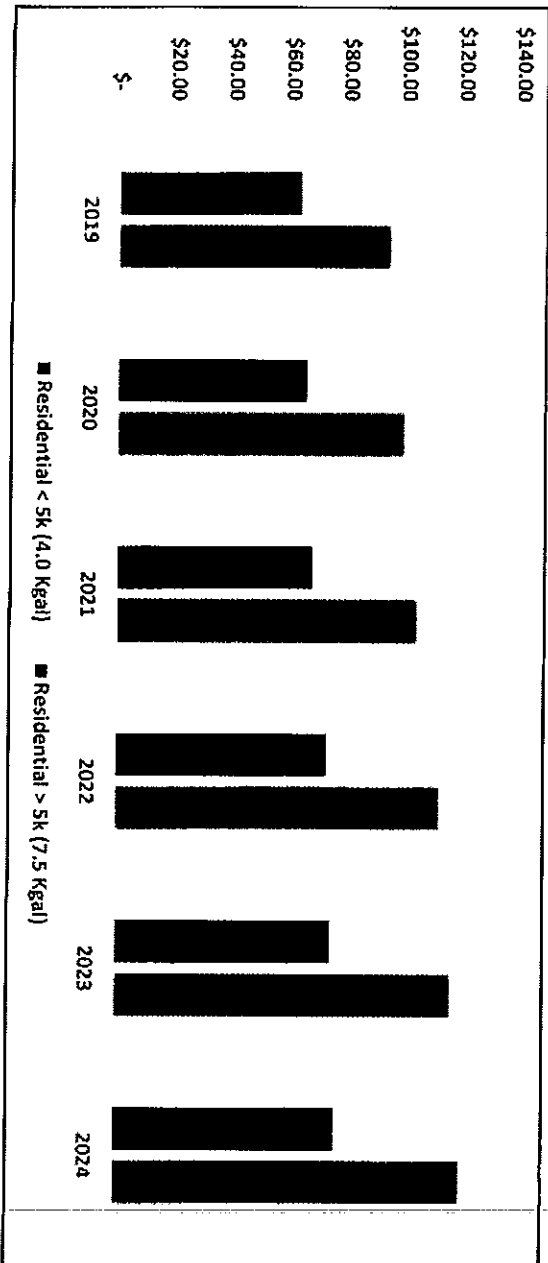
| Proposed Rate Adjustments | | | | | |
|---------------------------|--------|-------|-------|-------|-------|
| Year | 2020 | 2021 | 2022 | 2023 | 2024 |
| % | 10.00% | 8.50% | 8.00% | 6.50% | 5.00% |

5-Yr Proposed Rate Adjustments



■ 2020 ■ 2021 ■ 2022 ■ 2023 ■ 2024

How will this affect your monthly bill?



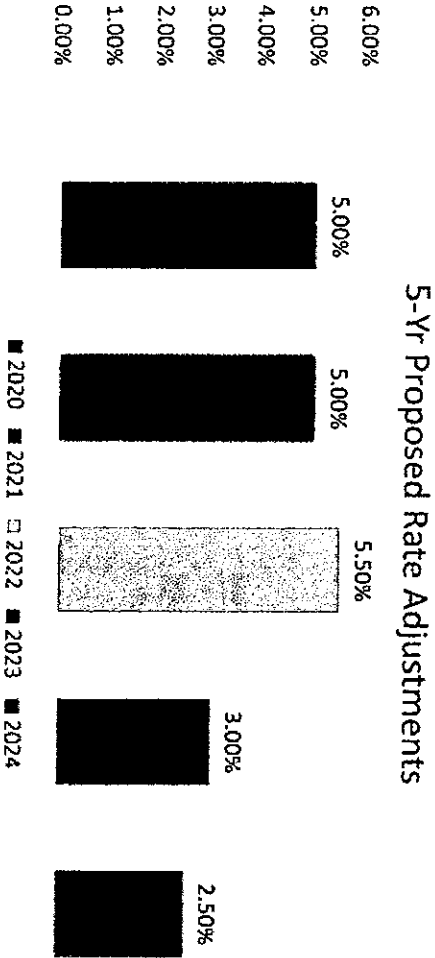
| AVERAGE MONTHLY CONSUMPTION | | | | | | | | | |
|-----------------------------|--|---------|-------|---------------------------|--------|--------|--------|-----------------------|--|
| | | Current | | Proposed Rate Adjustments | | | | | |
| | | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 5-Yr Average Increase | |
| Residential < 5k | | 62.93 | 65.23 | 67.47 | 72.84 | 74.77 | 76.33 | | |
| Increase | | | 2.30 | 2.19 | 5.37 | 1.93 | 1.62 | 2.68 | |
| Residential > 5k | | 93.83 | 93.87 | 103.65 | 111.09 | 116.10 | 119.64 | | |
| Increase | | | 5.04 | 4.78 | 8.23 | 4.22 | 3.54 | 5.16 | |

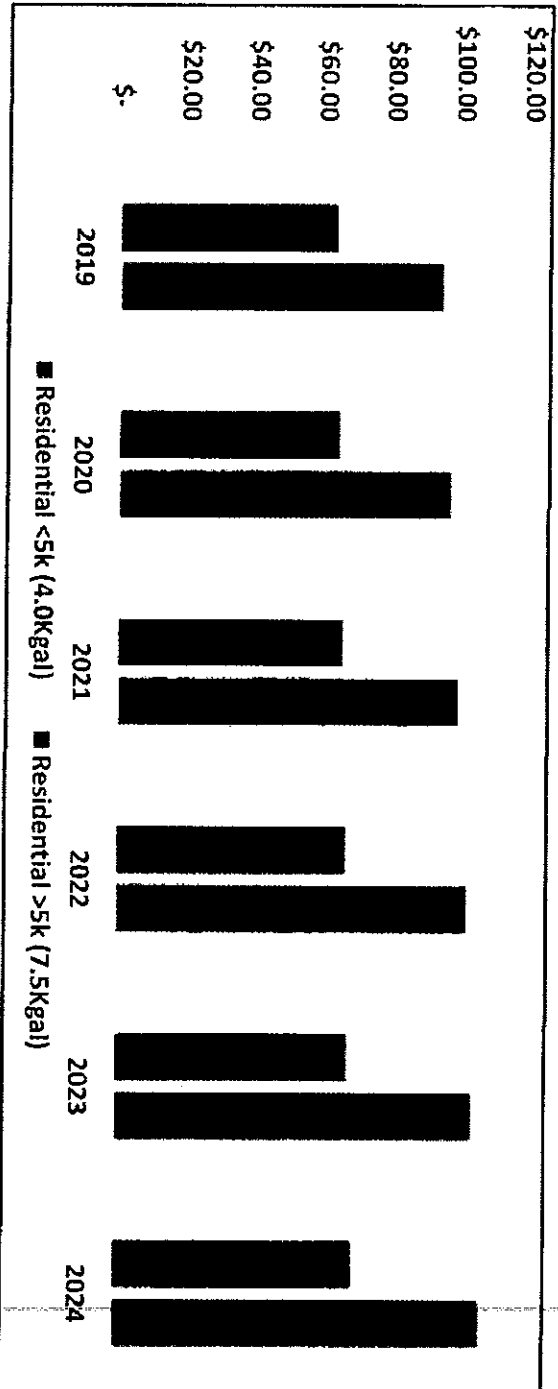
Bills by Customer Type – Filed Rate Application

| AVERAGE MONTHLY BILLING INFORMATION for Water & Sewer | | | | | | | | | |
|---|--|-----------------|-----------|---------------------------|-----------|-----------|-----------|--|--------------------------|
| Average Monthly Consumption by Rate Class | | Current 2019 | | Projected Rate Adjustment | | | | | 5-Yr Average Increase |
| | | 2020 | 2021 | 2022 | 2023 | 2024 | | | |
| 1 Residential < 5K | | | | | | | | | |
| Increase | | 62.93 | 63.29 | 67.47 | 72.84 | 74.77 | 78.93 | | 2.68 |
| | | | 2.30 | 2.19 | 5.37 | 1.93 | 1.62 | | |
| 2 Residential > 5K | | | | | | | | | |
| Increase | | 93.83 | 93.97 | 103.66 | 104.69 | 116.10 | 119.64 | | 5.16 |
| | | | 5.04 | 4.78 | 8.23 | 4.22 | 3.54 | | |
| 3 Commercial 1 | | | | | | | | | |
| Increase | | 740.33 | 813.24 | 832.36 | 932.03 | 1,012.93 | 1,064.09 | | 64.74 |
| | | | 72.86 | 69.13 | 69.67 | 60.90 | 51.16 | | |
| 4 Commercial 2 | | | | | | | | | |
| Increase | | 12,292.07 | 13,501.73 | 14,649.37 | 15,803.05 | 16,812.13 | 17,668.93 | | 1,074.90 |
| | | | 1,209.66 | 1,147.65 | 1,156.68 | 1,011.13 | 849.40 | | |
| 5 Commercial 3 | | | | | | | | | |
| Increase | | 1,823.76 | 2,003.23 | 2,173.51 | 2,315.12 | 2,413.14 | 2,621.16 | | 159.48 |
| | | | 179.48 | 170.27 | 171.61 | 150.02 | 126.02 | | |
| 6 Government - 661 | | | | | | | | | |
| Increase | | 1,783.53 | 1,931.24 | 2,127.95 | 2,235.96 | 2,412.81 | 2,566.22 | | 156.14 |
| | | | 175.71 | 166.71 | 168.02 | 146.88 | 123.38 | | |
| 7 Industrial | | | | | | | | | |
| Increase | | 119.97 | 131.73 | 142.53 | 154.27 | 164.14 | 172.43 | | 10.49 |
| | | | 11.81 | 11.20 | 11.29 | 9.87 | 8.29 | | |
| 8 Agriculture | | | | | | | | | |
| Increase | | 110.74 | 121.64 | 131.93 | 142.40 | 144.51 | 159.16 | | 9.68 |
| | | | 10.90 | 10.34 | 10.42 | 9.11 | 7.65 | | |

How will these funding needs affect service rates

| Proposed Rate Adjustments | | | | | |
|---------------------------|-------|-------|-------|-------|-------|
| Year | 2020 | 2021 | 2022 | 2023 | 2024 |
| % | 5.00% | 5.00% | 5.50% | 3.00% | 2.50% |





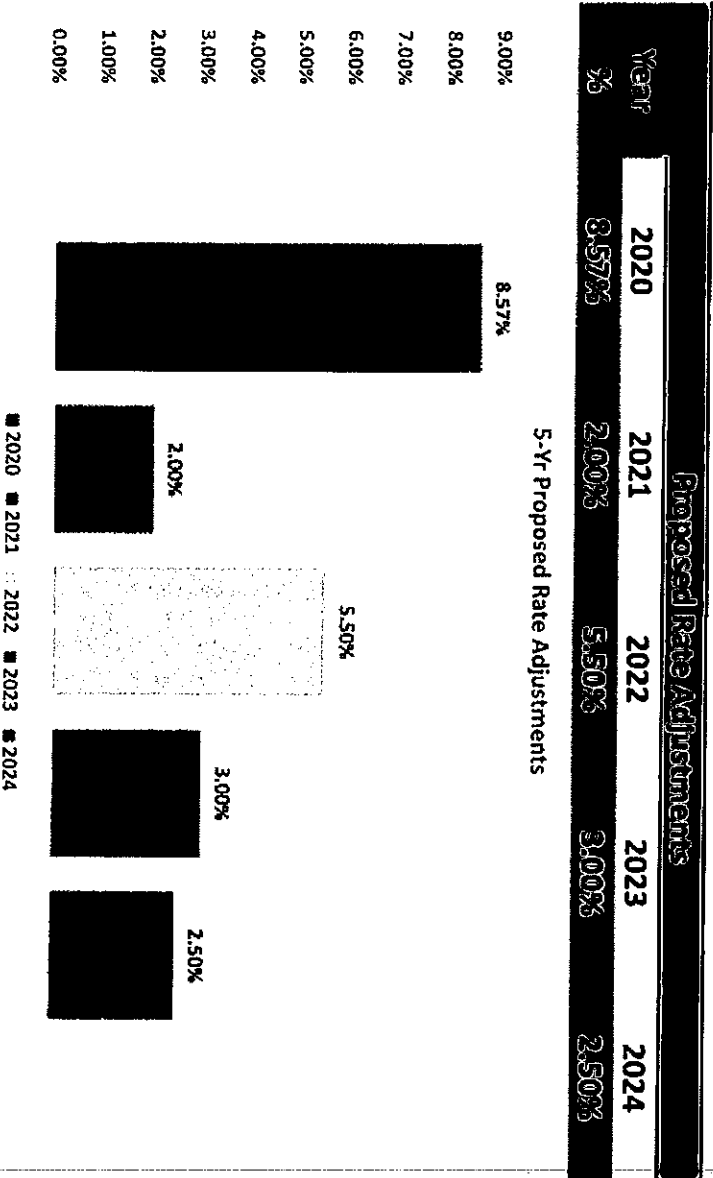
| Average Monthly Billing Information for Water & Sewer | | | | | | | |
|---|-----------------|---------------------------|-------|--------|--------|--------|---------------------------|
| Average Monthly Consumption by Rate Class | Current 2019 | Proposed Rate Adjustments | | | | | 5-Yr. Average Increase |
| | | 2020 | 2021 | 2022 | 2023 | 2024 | |
| 1 Residential < 5K | 62.93 | 64.12 | 65.35 | 66.74 | 67.52 | 69.23 | |
| Increase | | 1.13 | 1.23 | 1.39 | 0.79 | 1.70 | 1.25 |
| 2 Residential > 5K | 93.83 | 96.32 | 99.00 | 102.05 | 103.77 | 105.40 | |
| Increase | | 2.48 | 2.69 | 3.05 | 1.72 | 2.62 | 2.51 |

AVERAGE MONTHLY BILLING INFORMATION for Water & Sewer

| Average Monthly Consumption by Rate Class | Current 2019 | Proposed Rates/Amounts | | | | | 5-Yr Average Increase |
|--|-----------------|------------------------|----------------|----------------|----------------|----------------|--------------------------|
| | | 2020 | 2021 | 2022 | 2023 | 2024 | |
| | | \$/100 | \$/100 | \$/100 | \$/100 | \$/100 | |
| 1 Residential <5K | 62.93 | 64.12 | 63.35 | 63.74 | 67.52 | 69.23 | |
| Increase | 1.13 | 1.23 | 1.39 | 0.79 | 1.70 | 1.25 | |
| 2 Residential >5K | 93.63 | 93.92 | 99.00 | 100.05 | 101.77 | 103.40 | |
| Increase | 2.48 | 2.69 | 3.05 | 1.72 | 2.62 | 2.51 | |
| 3 Commercial 1-5000 | 740.33 | 776.27 | 815.03 | 839.03 | 841.60 | 903.51 | |
| Increase | 35.89 | 38.81 | 44.00 | 24.92 | 22.54 | 33.23 | |
| 4 Commercial 2-5000 | 1079.07 | 1083.01 | 1315.41 | 1429.61 | 1475.61 | 1509.00 | |
| Increase | 595.94 | 644.40 | 730.50 | 413.69 | 374.19 | 551.75 | |
| 5 Commercial 3-5000 | 1423.73 | 1492.17 | 2407.73 | 2403.37 | 2779.55 | 2723.03 | |
| Increase | 88.42 | 95.61 | 108.38 | 61.38 | 55.52 | 81.86 | |
| 6 Government-65 | 1733.53 | 1972.09 | 1953.70 | 2407.31 | 2415.90 | 2403.25 | |
| Increase | 86.57 | 93.60 | 106.11 | 60.09 | 54.35 | 80.15 | |
| 7 Irrigation | 109.97 | 123.79 | 132.03 | 139.21 | 137.5 | 146.90 | |
| Increase | 5.82 | 6.29 | 7.13 | 4.04 | 3.65 | 5.39 | |
| 8 Agriculture | 100.74 | 115.11 | 121.92 | 122.50 | 127.23 | 133.60 | |
| Increase | 5.37 | 5.81 | 6.58 | 3.73 | 3.37 | 4.97 | |

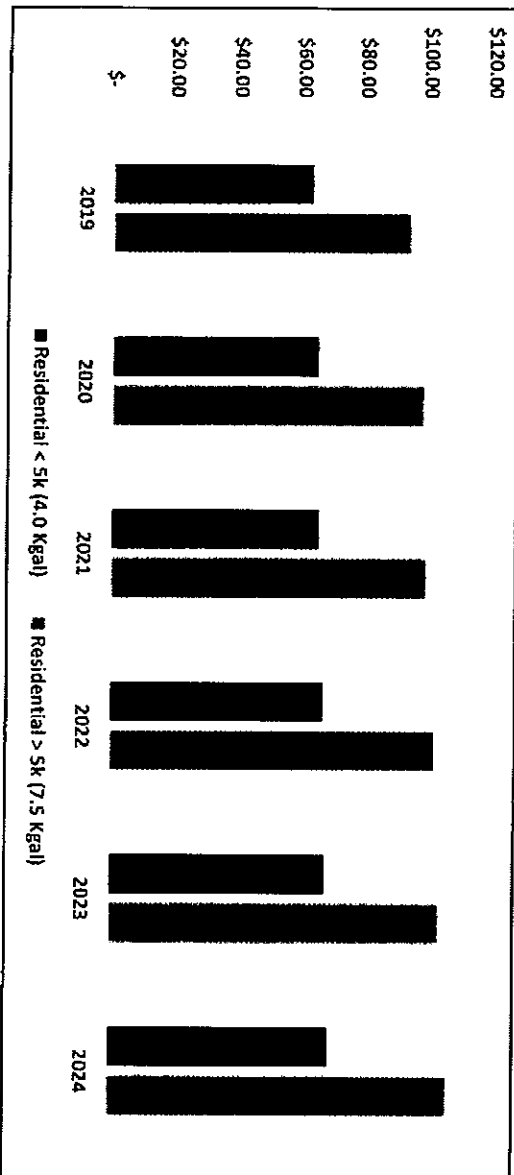
Bills by Customer Type-- Stipulation

How will these funding needs affect service rates



How will this affect Your Monthly Bill?

GUAM WATERWORKS AUTHORITY



AVERAGE MONTHLY BILLING INFORMATION for Water & Sewer

| Average Monthly Consumption by Rate Class | | Proposed Rate Adjustments | | | | | | 5-Yr Average Increase | |
|---|-------|---------------------------|-------|--------|--------|--------|--|-----------------------|--|
| Current | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | | | |
| 1 Residential < 5K (4.0 Kgal) | | | | | | | | | |
| Increase | 62.93 | 64.93 | 65.43 | 66.85 | 67.65 | 69.35 | | 1.27 | |
| | 1.97 | 0.51 | 1.40 | 0.79 | 1.71 | | | | |
| 2 Residential > 5K (7.5 Kgal) | | | | | | | | | |
| Increase | 99.93 | 98.14 | 99.25 | 102.81 | 104.05 | 106.63 | | 2.57 | |
| | 4.31 | 1.11 | 3.06 | 1.73 | 2.63 | | | | |

AVERAGE MONTHLY BILLING INFORMATION for Water & Sewer

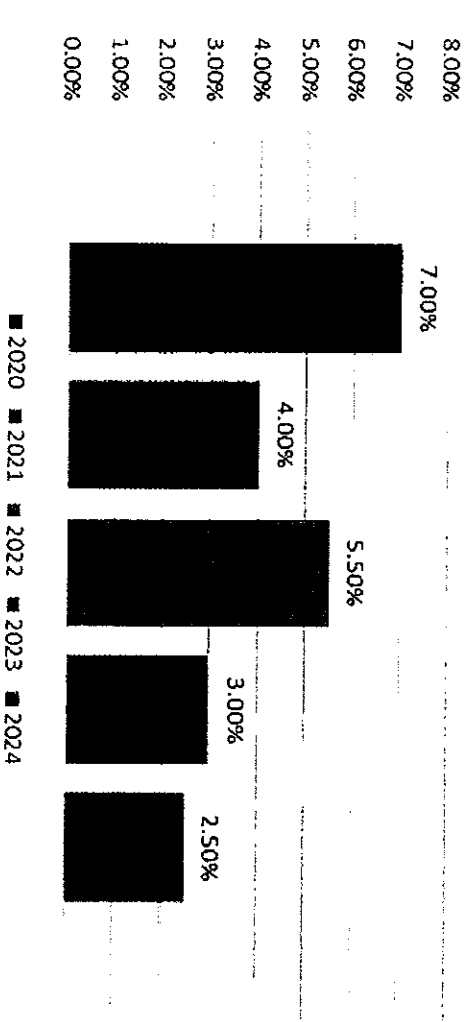
| Average Monthly Consumption by Rate Class | Report Period Ending 3 | | | | | | | 5-Yr Average Increase |
|--|------------------------|-----------|-----------|-----------|-----------|-----------|------|--------------------------|
| | Current 2019 | 2020 | 2000 | 2021 | 2022 | 2023 | 2024 | |
| | | | | | | | | |
| 1 Residential < 5K | 62.63 | 64.95 | 65.46 | 66.65 | 67.65 | 69.35 | | |
| Increase | | 1.97 | 0.51 | 1.40 | 0.79 | 1.71 | | 1.27 |
| 2 Residential > 5K | 93.13 | 93.14 | 93.25 | 102.31 | 104.05 | 106.63 | | |
| Increase | | 4.31 | 1.11 | 3.06 | 1.73 | 2.63 | | 2.57 |
| 3 Commercial 1 | 740.23 | 802.67 | 818.73 | 832.92 | 837.95 | 910.59 | | |
| Increase | | 62.30 | 16.05 | 44.20 | 25.03 | 22.64 | | 34.04 |
| 4 Commercial 2 | 12,292.07 | 13,326.33 | 13,592.91 | 14,326.63 | 14,792.22 | 15,119.03 | | |
| Increase | | 1,034.31 | 266.53 | 733.77 | 415.54 | 375.86 | | 565.20 |
| 5 Commercial 3 | 1,823.76 | 1,977.21 | 2,016.76 | 2,125.63 | 2,197.23 | 2,243.05 | | |
| Increase | | 153.46 | 39.54 | 108.87 | 61.65 | 55.77 | | 83.86 |
| 6 Government - G5 | 1,763.53 | 1,931.11 | 1,974.43 | 2,031.07 | 2,141.43 | 2,195.03 | | |
| Increase | | 159.58 | 29.37 | 106.59 | 60.36 | 54.60 | | 82.10 |
| 7 Irrigation | 113.97 | 120.07 | 132.67 | 139.33 | 143.59 | 147.76 | | |
| Increase | | 10.10 | 2.60 | 7.16 | 4.06 | 3.67 | | 5.52 |
| 8 Agriculture | 110.74 | 120.06 | 122.45 | 129.07 | 132.59 | 136.20 | | |
| Increase | | 9.32 | 2.40 | 6.61 | 3.74 | 3.39 | | 5.09 |

**Bills by
Customer
Type –
Compressed
Rates #1**

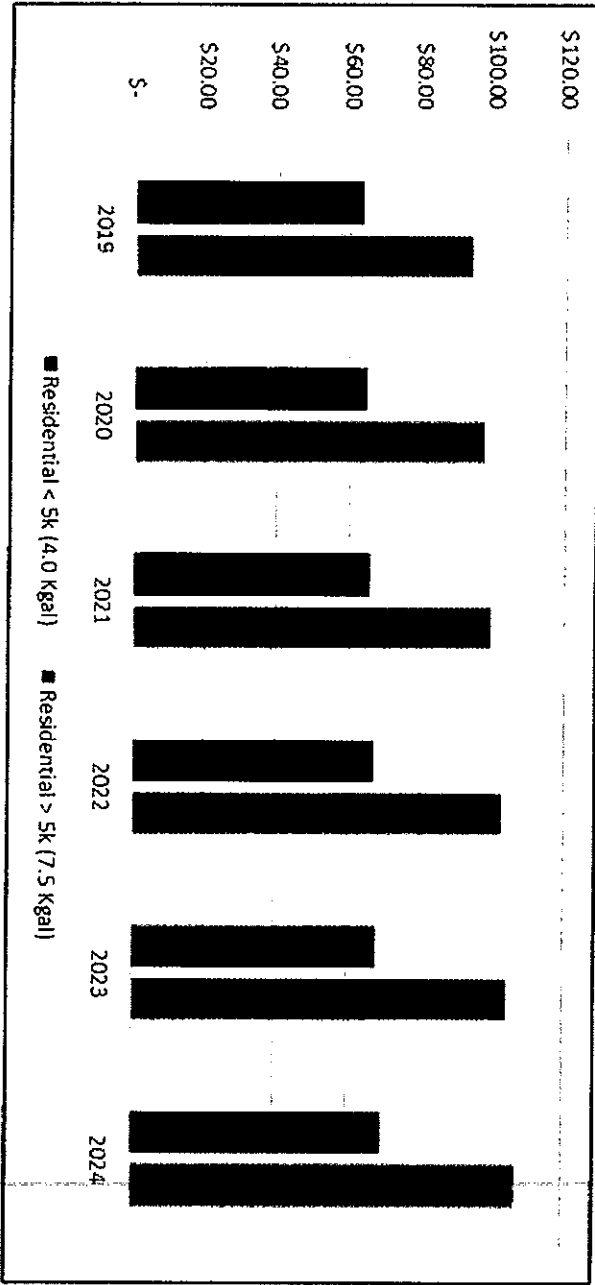
How will these funding needs affect service rates?

| Alternative Rates | | | | | |
|-------------------|-------|-------|-------|-------|-------|
| Year | 2020 | 2021 | 2022 | 2023 | 2024 |
| % | 7.00% | 4.00% | 5.50% | 3.00% | 2.50% |

5-Yr Proposed Rate Adjustments



How will this affect your monthly bill?



| Average Monthly Consumption | | Alternative Rates | | | | | | 5-Yr Average Increase | |
|-----------------------------|-------|-------------------|--------|--------|--------|-------|--|-----------------------|------|
| Current | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | | | |
| Residential < 5k | | | | | | | | | |
| 62.93 | 61.59 | 61.59 | 61.59 | 61.59 | 67.73 | 69.49 | | | |
| Increase | 1.60 | 1.00 | 1.40 | 0.80 | 1.71 | | | | 1.30 |
| Residential > 5k | | | | | | | | | |
| 93.83 | 97.34 | 99.53 | 102.60 | 104.34 | 106.93 | | | | |
| Increase | 3.51 | 2.19 | 3.07 | 1.74 | 2.64 | | | | 2.63 |

AVERAGE MONTHLY BILLING INFORMATION for Water & Sewer

| Average Monthly Consumption by Rate Class | Current 2019 | Approved Rates | | | | | 5-Yr Average Increase |
|--|-----------------|----------------|-----------|-----------|-----------|-----------|--------------------------|
| | | 7/00/13 | 4/00/15 | 5/00/16 | 3/00/18 | 7/00/19 | |
| | | 2020 | 2021 | 2022 | 2023 | 2024 | |
| Residential < 5K | 62.98 | 64.59 | 65.59 | 66.99 | 67.76 | 69.49 | 1.30 |
| Increase | | 1.60 | 1.00 | 1.40 | 0.80 | 1.71 | |
| Residential > 5K | 93.83 | 97.34 | 99.53 | 102.60 | 104.34 | 106.98 | 2.63 |
| Increase | | 3.51 | 2.19 | 3.07 | 1.74 | 2.64 | |
| Commercial 1 | 740.38 | 751.06 | 822.70 | 867.11 | 192.26 | 915.01 | 34.93 |
| Increase | | 50.68 | 31.64 | 44.41 | 25.15 | 22.75 | |
| Commercial 2 | 12,792.07 | 13,133.50 | 13,653.84 | 14,396.16 | 14,193.72 | 15,191.41 | 579.87 |
| Increase | | 841.43 | 525.34 | 737.33 | 417.56 | 377.69 | |
| Commercial 3 | 1,323.76 | 1,948.60 | 2,026.54 | 2,135.94 | 2,197.89 | 2,253.93 | 86.03 |
| Increase | | 124.84 | 77.94 | 109.40 | 61.95 | 56.04 | |
| Government - G6 | 1,785.53 | 1,907.75 | 1,984.03 | 2,091.16 | 2,151.82 | 2,206.63 | 84.23 |
| Increase | | 122.22 | 76.31 | 107.10 | 60.65 | 54.86 | |
| Industrial | 119.97 | 128.19 | 133.31 | 140.51 | 141.59 | 143.27 | 5.66 |
| Increase | | 8.21 | 5.13 | 7.20 | 4.08 | 3.69 | |
| Agriculture | 110.74 | 118.32 | 123.06 | 129.70 | 133.43 | 136.86 | 5.22 |
| Increase | | 7.58 | 4.73 | 6.64 | 3.76 | 3.40 | |

Rate Options /Residential Bills at 4 Kgal and 7.5 Kgal

| | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 |
|------------------------------|---------|----------|----------|----------|----------|
| Filed | 10.0% | 8.5% | 8.0% | 6.5% | 5.0% |
| Stipulation | 5.0% | 5.0% | 5.5% | 3.0% | 2.5% |
| Compression | 8.6% | 2.0% | 5.5% | 3.0% | 2.5% |
| Alternative Compression | 7.0% | 4.0% | 5.5% | 3.0% | 2.5% |
| Residential Bill at 4 kgal | | | | | |
| Filed | \$65.29 | \$67.47 | \$72.84 | \$74.77 | \$76.38 |
| Stipulation | \$64.12 | \$65.35 | \$66.74 | \$67.53 | \$69.23 |
| Compression | \$64.95 | \$65.46 | \$66.86 | \$67.65 | \$69.35 |
| Alternative Compression | \$64.59 | \$65.59 | \$66.99 | \$67.78 | \$69.49 |
| Residential Bill at 7.5 kgal | | | | | |
| Filed | \$98.87 | \$103.66 | \$111.89 | \$116.10 | \$119.64 |
| Stipulation | \$96.32 | \$99.00 | \$102.50 | \$103.77 | \$106.40 |
| Compression | \$98.14 | \$99.25 | \$102.31 | \$104.05 | \$106.68 |
| Alternative Compression | \$93.30 | \$95.44 | \$98.49 | \$100.23 | \$102.75 |

**Guam Waterworks Authority
Basic Charge and Non-Lifeline Rate Increases
FY 2000 - Projected FY 2024 Per Stipulation with Compression**

