CHAPTER 15 – CAPITAL IMPROVEMENT PROGRAM

15.1 Introduction

GWA has a great challenge as the organization carries forward its program to enhance the reliability and accountability of the water and wastewater utility. As developed and defined in the WRMP, the required capital expenditures over the next 20 to 30 years could total \$900 million in 2007 dollars. To properly manage its CIP expenditures, manage its fiscal strength, and provide its rate payers the best value for the dollar, GWA will be required to develop and adhere to a structured CIP.

GWA has a policy in place that distinguishes an Operations Maintenance and Rehabilitation (OM&R) project from a CIP funded project. Exhibit 15A presents the differentiation between the two types of projects. The essence of the existing policy biases a majority of the typical OM&R funded projects to CIP projects.

The WRMP defines a number of CIP projects over the next 20 years that are essential for GWA to build a solid utility foundation. A focused effort in defining projects is the first step to aid the GWA team in meeting Chapter 4 - Levels of Service of this volume, expectations established by the CCU and GWA's customers. Successful implementation of the proposed CIP requires GWA to communicate and seek buy-in of its developed CIP policy by the staff, CCU, PUC and its rate payers.

15.2 Elements for a CIP

Until recently, GWA did not have a well defined process for identifying CIP projects. Determination of what the CIP included was based on the perception that a system or a piece of equipment was not functional or reliable, the inability to properly operate a system or facility, or other subjective means. This approach for developing a CIP has proved costly as it focuses on short-term problems at the expense of long-term solutions and is open to abuse. Today's technology and tools provide utilities with the necessary information to make sound decisions in defining CIP projects and establishing priorities.

The major components required to support a sound CIP decision making policy include:

- Asset management program (asset inventory, asset database)
- Hydraulic models
- Geographic Information System (GIS)
- Computerized Maintenance Management System (CMMS)
- Replacement Planning Model (RPM)
- Business Case Evaluation (BCE) protocol
- Rate setting models
- Communication outreach program

Once the above tools are in place, the utility must maintain the process to achieve the greatest return on their investment. A total alignment of processes and commitment is required from all levels of the utility from the Chair of the CCU to the front line staff of GWA.

The WRMP develops all of the components discussed above with the exception of the CMMS program. The challenge for GWA is to assume the ownership of these tools and maintain the integrity of the information through continuous updating of the respective databases, GIS, and models.

15.3 Elements of a CIP Policy

GWA's process for development of the annual budget for a CIP is similar to many municipalities throughout the United States. A 5-year CIP project listing is created for every annual budget. The development and commitment to an on-going policy will ensure that the CIP is truly a dynamic process and does not need to be recreated every budget year. The elements for a successful policy include:

- Defined Levels of Service expectations
- Utility master plans that provide a roadmap to meet future needs
- A process to evaluate selected projects before they are listed as a CIP item, preferably through the use of a BCE protocol
- Procedures to obtain feedback from the operations group on major OM&R issues that are CIP projects
- A risk evaluation process to guide decision making
- A prioritization process for proposed CIP projects
- An understanding of utility budgetary constraints
- A communication plan to involve and share with GWA staff and decision makers

The basic framework for a policy is presented in the WRMP. In order for GWA to effectively implement the program requires a champion team be designated to carry forward the development of the CIP policy.

The WRMP will serve as the initial guidance roadmap to outline the current state of GWA and define the future improvements needed to rehabilitate the utility systems and meet Guam's economic growth. The asset management and BCE concept has been introduced to the key members of GWA's management and accounting teams. A strategic communications plan has been prepared for GWA consideration and implementation.

15.4 Delivery of CIP Projects

A structured and efficient process for defining CIP projects needs to be matched by an equally structured and efficient process for delivering identified projects. Consideration should be given to a wide variety of delivery mechanisms available for designing, constructing and operating water and wastewater infrastructure. Different types of project delivery mechanisms include:

- Traditional design by a consultant and construction by a contractor
- Design and construct under one contract (also called Design-Build)
- Contracts to build, own and operate facilities for periods of 10 to 20 years
- Alliances, partnerships and operations support arrangements

Each type of project delivery arrangement has strengths and weaknesses and an analysis of the objectives and risks involved with each project and long-term operating activity is best undertaken at a time close to their implementation to assess the best approach in the circumstances prevailing at the time.

The project delivery mechanism chosen will also be influenced by factors such as whether privatization proceeds and in what form, the capabilities of GWA staff to manage different size and types of projects, and the need for alternative types of financing.

There are many hundreds of millions of dollars of CIP projects defined in the WRMP and the delivery of these projects in a structured and efficient way will be an important issue for GWA and the CCU in coming years.

15.5 WRMP CIP Projects

The WRMP Volumes 2 and 3 present the technical basis and justification for the proposed water and wastewater system CIP. The specific projects are summarized and prioritized for the water system in Volume 2, Chapter 9 and for the wastewater system in Volume 3, Chapter 9. Projects were ranked and prioritized based on the specific needs they fulfilled including:

- Life and Safety
- Regulatory Compliance
- System Reliability
- System Redundancy
- System Capacity
- Operation Maintenance and Rehabilitation Recommendations

The defined CIP indicates that GWA will be in a catch up mode for the first 5 to 10 years to reestablish the base foundation for the utility. The highest priority projects will focus on meeting the level of service expected by the CCU, GWA staff and GWA's customers. Primary among the expectations are:

- Continuity of water supply
- Safe drinking water quality
- Mitigating wastewater spills
- Appropriate wastewater treatment

Concurrent with rebuilding the foundation of the utility, GWA must complete projects that will ensure that water and wastewater systems can meet Guam's immediate growth requirements.

15.6 WRMP CIP Schedule

Two CIP schedules have been identified. Both use the same proposed projects needed to rehabilitate the water and wastewater infrastructure and bring GWA into full compliance with current and anticipated future regulations. The "Recommended WRMP CIP—Base Case" shown in Table 15-1 provides a project schedule that would complete the essential CIP project work in 20 years, averaging about \$45 million annually. In recognition that such a schedule may not be financially feasible, a second schedule entitled "Recommended WRMP CIP — Minimum Case" is

presented in Table 15-2, which extends the project schedule an additional 10 years. In the "Minimum Case", the construction pace is slower for water distribution system upgrades, lower priority sewer upgrades, wastewater treatment plant upgrades, and connection of unsewered areas. The deferrals reduce CIP expenditures in the first 5 years by \$54 million and postpone \$154 million in expenditures to beyond 20 years. The funding and rate impacts for both schedules are shown in Chapter 14 - Financial Program of this volume.

15.7 WRMP CIP Cost Estimating

Cost estimating range of accuracy is defined based on the level of project definition. The Association for the Advancement of Cost Engineering (AACE) International has created a Cost Estimate Classification System (Recommended Practice No. 18R-97) that defines 5 classes of cost estimates as presented in Exhibit 15B, Classification Matrix for Process Industries. Using this matrix as a guide, the GWA WRMP cost estimate accuracy range should vary from -50% to +100%.

The construction cost estimates developed for the WRMP considered the following cost information resources and assumptions.

- Comparable bid tabs from similar Guam or stateside projects
- Conceptual cost estimates
- Guam construction cost adjustment (140%) for stateside bid tabs
- Fifty percent adjustment for level of project definition
- 2007 dollars

In addition, capital cost estimates (as distinguished from construction cost estimates) accounted for engineering and construction management services based on the following assumptions using construction cost as a base.

- Design fees 10%
- Engineering services during construction 5%
- Construction management 7%

Project cost estimates should be reviewed and revised on an annual basis as part of the budget process to account for the volatile construction marketplace. The past 5 years have seen material and construction cost skyrocket based on the worldwide competitive market for materials and construction resources.

Moving from the WRMP estimates, the next logical activity is a preliminary engineering study in which alternatives are developed concurrent with more accurate cost estimation in the range of -15% to +50%. As more definition of the project is gained, more accuracy is possible. This master plan fits the definition of a Class 5 activity.

15.8 CAPE Application (hit beginning and ending)

The CAPE Application can be used by GWA to effectively manage changes in CIP project schedules. Details on CAPE are presented in Chapter 10 -CAPE of this volume. The specific module for CIP activities is titled the Capital Improvement Manager and provides a simple Gant chart interface for managing capital improvement information. Project schedules (including anticipated start and completion dates) can be changed by dragging boxes in the chart.

Expenditures across a variety of funds are automatically recalculated whenever the schedule is modified. Customized reports can be automatically generated for the CIP, including the Project Summary sheets shown in Volumes 2 and 3, Chapter 9 for the individual water and wastewater projects.

15.9 Conclusions

This chapter provides a basis for the development of the WRMP CIP and emphasizes the need for and usefulness of several tools to significantly upgrade the present method of CIP development. Key elements discussed include:

- CIP Development
- CIP Policy Development
- CIP Delivery Options
- CIP Tools Capacity Assurance Planning Environment (CAPE) Application
- CIP Cost Estimating

15.10 Recommendations

In order to maintain a viable CIP it will be necessary to implement recommendations in the WRMP. Volume 2, Chapter 9 – Recommended Water System CIP and Volume 3, Chapter 9 – Recommended Wastewater System CIP addressing water and wastewater systems respectively identify a number of specific CIP projects which, when completed will vastly improve the performance of GWA's utility systems. In addition, the process for identifying, tracking and implementing projects with the help of the tools identified in this chapter will assist in the program's success.

15.11 CIP Impact

Each of the CIP Chapters named in the Recommendations section above address specific CIP impacts for both water and wastewater projects.

Table 15-1 – Recommended Capital Improvement Program – Base Case

The content of the	Project	Project Types ³	Priority Ranking	2007	2008	2009	2010	2011	2012	2013	2014	Budget Year 2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Totals
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Electrical Upgrade — Agal-Santa Rita STP	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc)	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMAR SR/OMAR RC/SR RC/SR SR/SRED SR/SRED SR/SRED SR/OMAR SR/OMAR SR/OMAR LS/SR	45.1 41.9 41.9 25.8 25.8 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1	\$500,000 \$1,000,000	,,,,,,,,,,	\$5,000,000	\$2,600,000		\$140,000 \$30,140,000	\$1,200,000 \$420,000 \$3,520,000	\$0	\$10,000,000	\$1,800,000			\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$1,900,00 \$18,000,00 \$190,00 \$2,300,00 \$21,000,00 \$11,000,00 \$140,00 \$3,700,00 \$112,470,00
Electrical Upgrade — Northern District STP	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS)	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMAR SR/OMAR RC/SR RC/SR SR/SRED SR/SRED SR/SRED SR/OMAR SR/OMAR SR/OMAR LS/SR LS/SR LS/SR	45.1 41.9 41.9 25.8 25.8 30.1 25.6 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1	\$500,000 \$1,000,000 \$650,000	,,,,,,,,,,	\$5,000,000	\$2,600,000		\$140,000 \$30,140,000	\$1,200,000 \$420,000 \$3,520,000	\$0	\$10,000,000	\$1,800,000			\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$1,900,00 \$18,000,00 \$190,00 \$420,00 \$21,000,00 \$1,200,00 \$140,00 \$440,00 \$3,700,00 \$112,470,00 \$650,00 \$250,00
Electrical Upgrade - Northern District STP	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Wells Electrical Upgrade - Water Santa Rita STP	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMMR SR/OMMR RC/SR RC/SR RC/SR SR/SRED SR/SRED SR/SRED SR/OMMR SR/OMMR SR/OMMR SR/OMMR LS/SR LS/SR LS/SR LS/SR	45.1 41.9 41.9 25.8 25.8 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1	\$500,000 \$1,000,000 \$650,000 \$2,000,000	,,,,,,,,,,	\$5,000,000	\$2,600,000		\$140,000 \$30,140,000	\$1,200,000 \$420,000 \$3,520,000	\$0	\$10,000,000	\$1,800,000			\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$1,900,00 \$18,000,00 \$190,00 \$2,300,00 \$1,200,00 \$11,200,00 \$140,00 \$3,700,00 \$12,470,00 \$12,470,00 \$350,00 \$250,00 \$2,000,00
Wastewater Pumping Station Electrical Upgrade	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Wells Electrical Upgrade - Agat-Santa Rita STP Electrical Upgrade - Agat-Santa Rita STP	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMAR SR/OMAR RC/SR RC/SR RC/SR SR/SRED SR/SRED SR/SRED SR/SRED SR/OMAR SR/OMAR Total LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR	45.1 41.9 41.9 25.8 25.8 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1	\$500,000 \$1,000,000 \$650,000 \$2,000,000	\$350,000	\$5,000,000	\$2,600,000	\$18,000,000	\$140,000 \$30,140,000	\$1,200,000 \$420,000 \$3,520,000	\$0	\$10,000,000	\$1,800,000			\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$1,900,00 \$18,000,00 \$190,00 \$420,00 \$2,300,00 \$11,000,00 \$140,00 \$420,00 \$3,700,00 \$142,00 \$3,700,00 \$350,00 \$250,00 \$250,00 \$400,00 \$300,00 \$300,00
GWA SCADA System - Phase 1 RC/SR 16.3 \$250,000 \$1,100,000 \$1,000	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Fecilities Plan/Design for the Umatac-Merizo STP Improvements Pago Socio STP Conversion Fecilities Plan/Design for the Umatac-Merizo STP Improvements Pago Socio STP Conversion Fecilitical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Wells Electrical Upgrade - Agat-Santa Rita STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Northern District STP	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMAR SR/OMAR RC/SR RC/SR RC/SR SR/SRED SR/SRED SR/SRED SR/OMAR SR/OMAR SR/OMAR SR/OMAR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR	45.1 41.9 41.9 25.8 25.8 30.1 30.1 30.1 25.6 25.6 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1	\$500,000 \$1,000,000 \$650,000 \$2,000,000	\$350,000	\$5,000,000 \$6,500,000 \$250,000	\$2,600,000	\$18,000,000	\$140,000 \$30,140,000	\$1,200,000 \$420,000 \$3,520,000	\$0	\$10,000,000	\$1,800,000			\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$1,900,00 \$18,000,00 \$190,00 \$420,00 \$2,300,00 \$11,000,00 \$140,00 \$3,700,00 \$3,700,00 \$350,00 \$250,00 \$250,00 \$300,00 \$10,000,00 \$300,00 \$10,000,00
GWA SCADA System - Phase 2 RC/SR 16.3 \$1,100,000 \$2,500,000 \$2,500,000 \$2,500,000 \$3,250	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Stacilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Wells Electrical Upgrade - Water Wells Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Morthern District STP Electrical Upgrade - Morthern District STP Electrical Upgrade - Morthern District STP	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMMR SR/OMMR RC/SR RC/SR SR/SRED SR/SRED SR/SRED SR/OMMR SR/OMMR SR/OMMR LS/SR	45.1 41.9 41.9 25.8 30.1 25.6 25.6 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1	\$500,000 \$1,000,000 \$650,000 \$2,000,000 \$400,000	\$350,000	\$5,000,000 \$6,500,000 \$250,000	\$2,600,000	\$18,000,000	\$140,000 \$30,140,000	\$1,200,000 \$420,000 \$3,520,000	\$0	\$10,000,000	\$1,800,000			\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$1,900,00 \$18,000,00 \$420,00 \$420,00 \$23,00 \$1,000,00 \$1,200,00 \$140,00 \$440,00 \$420,00 \$33,700,00 \$33,700,00 \$350,00 \$2,000,00 \$300,00 \$300,00 \$300,00 \$300,00 \$300,00
GWA SCADA System - Phase 3 RC/SR 16.3 \$2,500,000 \$3,350,000 \$3,050	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Mater Booster Stations (Other WBPS) Electrical Upgrade - Mater Booster Stations (Pago Bay, etc) Electrical Upgrade - Mater Booster Stations (Other WBPS) Electrical Upgrade - Mater Booster Stations (Pago Bay, etc) Electrical Upgrade - Mater Boost	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMAR SR/OMAR RC/SR RC/SR RC/SR SR/SRED SR/SRED SR/SRED SR/OMAR SR/OMAR SR/OMAR TOtal LS/SR	45.1 41.9 41.9 25.8 25.8 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1 38	\$500,000 \$1,000,000 \$650,000 \$2,000,000 \$400,000	\$350,000	\$5,000,000 \$6,500,000 \$250,000	\$2,600,000	\$18,000,000	\$140,000 \$30,140,000	\$1,200,000 \$420,000 \$3,520,000	\$0	\$10,000,000	\$1,800,000			\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$1,900.00 \$18,000.00 \$18,000.00 \$21,000.00 \$21,000.00 \$11,000.00 \$11,000.00 \$11,000.00 \$11,200.00 \$11,200.00 \$11,200.00 \$11,200.00 \$11,200.00 \$11,200.00 \$11,200.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00 \$10,000.00
GWA SCADA System - Phase 4 RC/SR 16.3 S4,300,000 \$3,350,000 \$3,050,000 \$35,000 \$30,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Northern District STP Electrical Upgrade - Water Station Electrical Upgrade - Water Station STP Electrical Upgrade - Water District STP Electrical Upgrade - Water District STP Electrical Upgrade - Water District STP Electrical Upgrade - Water Booster STP Wastewater Pumping Station Electrical Upgrade GWA SCADA System - Phase 1	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMMR SR/OMMR RC/SR RC/SR RC/SR SR/SRED SR/SRED SR/OMMR SR/OMMR SR/OMMR SR/OMMR SR/OMMR LS/SR RC/SR RC/SR	45.1 41.9 41.9 25.8 30.1 25.6 25.6 25.6 25.8 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1 38	\$500,000 \$1,000,000 \$650,000 \$2,000,000 \$400,000	\$350,000	\$5,000,000 \$6,500,000 \$250,000	\$2,600,000	\$18,000,000	\$140,000 \$30,140,000	\$1,200,000 \$420,000 \$3,520,000	\$0	\$10,000,000	\$1,800,000			\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$1,900,00 \$18,000,00 \$420,00 \$2,300,00 \$2,1000,00 \$1,200,00 \$1,200,00 \$140,00 \$140,00 \$3,700,00 \$3,700,00 \$250,00 \$250,00 \$3,900,00 \$1,9
Year Total \$4,300,000 \$3,350,000 \$3,050,000 \$865,000 \$30,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Morthern District STP Electrical Upgrade - Borthern District STP Electrical Upgrade - Northern District STP Electrical Upgrade - Umatac-Merizo STP Wastewater Pumping Station Electrical Upgrade GWA SCADA System - Phase 1 GWA SCADA System - Phase 2	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMAR SR/OMAR RC/SR RC/SR RC/SR SR/SRED SR/SRED SR/OMAR RC/SR R	45.1 41.9 41.9 25.8 25.8 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1 38	\$500,000 \$1,000,000 \$650,000 \$2,000,000 \$400,000	\$350,000	\$5,000,000 \$6,500,000 \$250,000 \$300,000	\$2,600,000	\$18,000,000	\$140,000 \$30,140,000	\$1,200,000 \$420,000 \$3,520,000	\$0	\$10,000,000	\$1,800,000			\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$1,900,00 \$18,000,00 \$420,00 \$2,300,00 \$21,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$2,000,00 \$3,700,00 \$2,000,00 \$35,00 \$2,000,00 \$3,900,00
GIS Other - \$160,000	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Agate-Santa Rita STP Electrical Upgrade - Agate-Santa Rita STP Electrical Upgrade - Northern District STP Electrical Upgrade - Omthern District STP Electrical Upgrade - Omthern District STP Wastewater Pumping Station Electrical Upgrade GWA SCADA System - Phase 1 GWA SCADA System - Phase 2 GWA SCADA System - Phase 3 GWA SCADA System - Phase 3 GWA SCADA System - Phase 3	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMMR SR/OMMR RC/SR RC/SR RC/SR SR/SRED SR/OMMR SR/OMMR SR/OMMR SR/OMMR SR/OMMR SR/OMMR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR	45.1 41.9 41.9 25.8 30.1 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1 38	\$500,000 \$1,000,000 \$650,000 \$2,000,000 \$400,000 \$1,000,000 \$250,000	\$350,000 \$1,900,000 \$1,100,000	\$5,000,000 \$6,500,000 \$250,000 \$300,000 \$2,500,000	\$850,000	\$18,000,000	\$140,000 \$30,140,000 Elect	\$1,200,000 \$420,000 \$3,520,000 rical/SCADA	\$0	\$10,000,000	\$1,800,000	\$16,000,000	\$420,000	\$0	\$0	\$0	SO	\$0	\$0	\$0	\$0	\$1,900,00 \$18,000,00 \$420,00 \$2,300,00 \$2,300,00 \$1,200,00 \$1,200,00 \$140,00 \$3,700,00
Year Total \$160,000 \$	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Agate Santa Rita STP Electrical Upgrade - Agate Santa Rita STP Electrical Upgrade - Morthern District STP Electrical Upgrade - Onthern District STP Electrical Upgrade - Merizo STP Wastewater Pumping Station Electrical Upgrade GWA SCADA System - Phase 1 GWA SCADA System - Phase 3 GWA SCADA System - Phase 3 GWA SCADA System - Phase 3 GWA SCADA System - Phase 4	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMMR SR/OMMR RC/SR RC/SR RC/SR SR/SRED SR/OMMR SR/OMMR SR/OMMR SR/OMMR SR/OMMR SR/OMMR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR	45.1 41.9 41.9 25.8 30.1 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1 38	\$500,000 \$1,000,000 \$650,000 \$2,000,000 \$400,000 \$1,000,000 \$250,000	\$350,000 \$1,900,000 \$1,100,000	\$5,000,000 \$6,500,000 \$250,000 \$300,000 \$2,500,000	\$850,000	\$18,000,000	\$140,000 \$30,140,000 Elect	\$1,200,000 \$420,000 \$3,520,000 rical/SCADA	\$0	\$10,000,000	\$1,800,000	\$16,000,000	\$420,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,900,00 \$18,000,00 \$420,00 \$2,300,00 \$21,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$2,000,00 \$3,700,00 \$2,000,00 \$35,00 \$2,000,00 \$3,900,00
Annual Total \$26,083,000 \$27,050,000 \$36,850,000 \$50,340,000 \$45,100,000 \$66,180,000 \$55,060,000 \$51,540,000 \$60,910,000 \$46,850,000 \$32,730,000 \$41,630,000 \$38,630,000 \$28,430,000 \$28,430,000 \$27,430,000 \$897,613,000 \$40,850,000 \$40,	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Agate Santa Rita STP Electrical Upgrade - Agate Santa Rita STP Electrical Upgrade - Morthern District STP Electrical Upgrade - Onthern District STP Electrical Upgrade - Merizo STP Wastewater Pumping Station Electrical Upgrade GWA SCADA System - Phase 1 GWA SCADA System - Phase 3 GWA SCADA System - Phase 3 GWA SCADA System - Phase 3 GWA SCADA System - Phase 4	SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SMED SR/OMMR RC/SR RC/SR RC/SR SR/SRED SR/SRED SR/SRED SR/OMMR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR RC/SR R	45.1 41.9 41.9 25.8 25.8 30.1 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1 38	\$500,000 \$1,000,000 \$650,000 \$400,000 \$1,000,000 \$250,000	\$350,000 \$1,900,000 \$1,100,000 \$3,350,000	\$5,000,000 \$6,500,000 \$250,000 \$300,000 \$2,500,000 \$3,060,000	\$850,000 \$850,000	\$18,000,000	\$140,000 \$30,140,000 Elect	\$1,200,000 \$420,000 \$3,520,000 rical/SCADA	\$0	\$10,000,000	\$1,800,000	\$16,000,000	\$420,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,900,00 \$18,000,00 \$420,00 \$2,300,00 \$1,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$3,700,00 \$3,700,00 \$2,000,00 \$3,000,00 \$2,500,00 \$3,900,
	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion – Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion – Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Wells Electrical Upgrade - Water Wells Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Morthern District STP Electrical Upgrade - Umatac-Merizo STP Wastewater Pumping Station Electrical Upgrade GWA SCADA System - Phase 1 GWA SCADA System - Phase 2 GWA SCADA System - Phase 4 Year	SR/SRED/SC	45.1 41.9 41.9 25.8 25.8 30.1 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1 38	\$1,000,000 \$650,000 \$650,000 \$400,000 \$1,000,000 \$250,000 \$4,300,000 \$160,000	\$350,000 \$1,900,000 \$1,100,000 \$3,350,000 \$160,000	\$5,000,000 \$6,500,000 \$250,000 \$300,000 \$2,500,000 \$160,000	\$850,000 \$850,000 \$160,000	\$18,000,000 \$300,000 \$300,000 \$160,000	\$140,000 \$30,140,000 Elect	\$1,200,000 \$420,000 \$3,520,000 rical/SCADA	\$0	\$10,000,000	\$1,800,000	\$16,000,000	\$420,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,900.00 \$18,000.00 \$21,000.00 \$21,000.00 \$21,000.00 \$11,000.00 \$11,000.00 \$11,2470.00 \$37,000.00
	Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Wells Electrical Upgrade - Marer Wells Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Northern District STP Electrical Upgrade - Morthern District STP Electrical Upgrade - Umatac-Merizo STP Wastewater Pumping Station Electrical Upgrade GWA SCADA System - Phase 1 GWA SCADA System - Phase 2 GWA SCADA System - Phase 4 Year	SR/SRED/SC	45.1 41.9 41.9 25.8 25.8 30.1 30.1 30.1 25.6 25.6 25.8 25.8 25.8 38.1 38.1 38.1 38.1 38.1 38.1 38.1 38	\$1,000,000 \$650,000 \$650,000 \$400,000 \$1,000,000 \$250,000 \$4,300,000 \$160,000	\$350,000 \$1,900,000 \$1,100,000 \$3,350,000 \$160,000	\$5,000,000 \$6,500,000 \$250,000 \$300,000 \$2,500,000 \$160,000	\$850,000 \$850,000 \$160,000	\$18,000,000 \$300,000 \$300,000 \$160,000	\$140,000 \$30,140,000 Elect	\$1,200,000 \$420,000 \$3,520,000 rical/SCADA	\$0	\$10,000,000	\$1,800,000	\$16,000,000	\$420,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,900,00 \$18,000,00 \$420,00 \$2,300,00 \$1,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$1,000,00 \$3,700,00 \$3,700,00 \$2,000,00 \$3,000,00 \$2,500,00 \$3,900,

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Cost based on (10% design, 5% Services during construction, 7% Construction Management, 50% Planning Level Adjustment)

Costs are 2007 Dollars

Project Types: RC=Regulatory Compliance; SR=System Reliability; SRED=System Redundancy; SC=System Capacity; OMR=OM&R; LS=Life & Safety

Costs for design, planning, and construction of full treatment for GWUDI compliance; If filtration avoidance is allowed, total costs will be approximately \$5,000,000 after transmission lines are complete Funded by Sewer Hook-up Revolving Fund

GWA may not be able to provide new sewers to existing customers without a connection fee. New legislation or alternative funding sources may be required.

Cost is an annual recurring cost to inspect and replace/rehabilitate the gravity and force main systems

Table 15-2 – Recommended Capital Improvement Program – Minimum Case

											Budget Ye	ar ^{1,2}											Years	Years
Project	Project Types ³	Priority Ranking	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	1 to 20	21 to 30 ⁸
Water Reservoir Internal/External Corrosion Assessment Program	LS/SR/OMR	47.6	\$125,000			1			Water System														\$125,000	\$
Water Reservoir Internal/External Corrosion Rehabilitation Program	LS/SR/OMR	47.6		\$500,000	\$500,000	\$500,000	\$500,000																\$2,000,000	9
Ugum Water Treatment Plant Membrane Filtration	SC/OMR	23.3	\$8,500,000		40 700 000																		\$8,500,000	\$
Ugum Water Treatment Plant Reservoir Replacement	LS/SR/SRED SR	49.9	¢550,000		\$8,700,000																		\$8,700,000 \$550,000	9
Ugum Water Treatment Plant Intake Modifications Water Distribution System Pine Replacement	LS/SR/OMR	16.3 47.6	\$550,000 \$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$740,000	\$740.000	\$740,000	\$740,000	\$740.000	\$740,000	\$740,000	\$740,000	\$740,000	\$740,000	\$740,000	\$53,140,000	3
Water Distribution System Pipe Replacement Mechanical/Electrical Equipment Replacement	LS/SR/OMR	47.6	\$3,000,000	\$930,000	\$930,000	\$930,000	\$930,000	\$930,000		\$930,000	\$930,000	\$930,000	\$930,000	\$930,000	\$930,000	\$930,000	\$930,000	\$930,000	\$930,000	\$930,000	\$930,000	\$930,000	\$17,670,000	S
Southern System Water Distribution System 2005 Improvements	LS/SR	38.1		\$1,300,000	φοσο,σσσ	\$1,300,000	φοσο,σσσ	\$1,300,000		\$1,300,000	φοσο,σσσ	\$1,300,000	φοσο,σσσ	\$1,300,000	\$000,000	\$1,300,000	ψοσο,σσσ	\$1,300,000	φοσο,σσσ	\$1,300,000	ψοσο,σσσ	\$1,300,000	\$13,000,000	\$10,000,00
Central System Water Distribution System 2005 Improvements	LS/SR	38.1		\$600,000	\$600,000	4.,,,	\$600,000	4.,,,	\$600,000	41,000,000	\$600,000	\$1,000,000	\$600,000	41,000,000	\$600,000	¥.,,===,	\$600,000	\$ 1,000,000	\$600,000	4 .,a.a.,a.a.	\$600,000	4.,,,	\$6,000,000	\$
Northern System Water Distribution System 2005 Improvements	LS/SR	38.1		\$2,600,000	\$2,600,000		\$2,600,000		\$2,600,000		\$2,600,000		\$2,600,000		\$2,600,000		\$2,600,000		\$2,600,000		\$2,600,000		\$26,000,000	93
Pressure Zone Realignment/Development 2005 Improvements	LS/SR	38.1		\$2,700,000		\$2,700,000		\$2,700,000															\$8,100,000	\$
Water Booster Pumping Station 2005 Improvements	LS/SR	38.1		\$700,000			\$500,000																\$1,200,000	\$
Water System Reservoirs 2005 Improvements	LS/SR	38.1		\$2,600,000		\$2,600,000		\$2,600,000		\$8,700,000		\$8,700,000											\$25,200,000	\$
Northern System Raw Water Transmission Lines	LS/SR	38.1	\$4,500,000	\$4,300,000			\$9,000,000	\$9,000,000		\$19,000,000		\$20,000,000		\$20,000,000		\$19,000,000		\$15,000,000		A E 000 000		\$4,000,000		\$
Water System Supply Wells 2025 Improvements Southern System Water Distribution System 2025 Improvements	SC LS/SR	13.8 38.1																		\$5,000,000			\$5,000,000	\$10,000,00
Northern System Water Distribution System 2025 Improvements		38.1															\$5,700,000	\$5,700,000	\$5,700,000	\$5,700,000	\$5,700,000	\$5,700,000	\$34,200,000	\$22,800,00
Water Booster Pump Station 2025 Improvements	LS/SR LS/SR	38.1															ψ0,700,000	ψ5,7 00,000	ψ5,700,000	45,700,000	ψ5,700,000	ψ0,700,000	\$0	\$1,600,00
Water System Reservoirs 2025 Improvements	LS/SR	38.1																\$3,000,000	\$4,300,000	\$3,000,000	\$8,700,000	\$8,700,000	\$27,700,000	\$1,000,00
Northern System GWUDI Filtration Compliance ⁴	RC	17											\$14,500,000	\$14,500,000	\$14,500,000	\$14,500,000	\$14,500,000	\$14,500,000	\$14,500,000			\$14,500,000	\$145,000,000	S
Year Total			\$18,675,000	\$21,230,000	\$18,330,000	\$13,030,000	\$19,130,000	\$21,530,000	\$9,130,000	\$34,930,000	\$9,130,000	\$31,670,000	\$19,370,000	\$37,470,000	\$19,370,000	\$36,470,000		\$41,170,000		\$31,170,000		\$35,870,000		\$44,400,00
	·							astewater Colle	ction System -	Capacity Related														
Northern District STP Rte 16 PS Overflow Study	SR/SC SR/OM&R	30.1	\$50,000 \$50,000																				\$50,000	\$
Northern District STP Eliminate Flow Split		25.8	\$50,000																				\$50,000	\$
Northern District STP Priority 1 Sewer Upgrades	RC/LS	38.8				\$2,400,000																	\$2,400,000	\$ ⁽
Northern District STP Priority 2 Sewer Upgrades	RC/SC	30.8														\$280,000							\$280,000	\$
Northern District STP Priority 3 Sewer Upgrades	RC/SC	30.8				\$4,000,000									-								\$4,000,000	\$4,500,00
Hagatha STP Priority 1 Sewer Upgrades	RC/LS	38.8				\$4,000,000									+								\$4,000,000	\$17,000,00
Hagatna STP Priority 2 Sewer Upgrades Hagatna STP Priority 3 Sewer Upgrades	RC/SC RC/SC	30.8 30.8								+					+	-				-	-		\$0 \$0	\$17,000,00 \$11,000,00
Hagatna STP Priority 3 Sewer Opgrades Hagatna STP Pump Station Upgrades	RC/SC	30.8				\$440,000		\$4,400,000		+	\$120,000	\$1,200,000			+						\$4,500,000		\$10,660,000	
Agat-Santa Rita STP Priority 1 Sewer Upgrades	RC/SC	30.8				\$1,200,000		ψ., 200,000			\$120,000	ψ.,200,000			+						ψ.,000,000		\$1,200,000	\$10,000,000
Agat-Santa Rita STP Priority 3 Sewer Upgrades	SC	13.8				ψ·,200,000															\$4,500,000		\$4,500,000	\$(
Baza Gardens STP Priority 1 Sewer Upgrades	RC/SC	30.8				\$650,000															. , ,		\$650,000	\$1
Baza Gardens STP Priority 2 Sewer Upgrades	SC	13.8														\$580,000							\$580,000	\$
Inarajan STP Pressure Sewer Upgrades	RC/SC	30.8				\$1,200,000																	\$1,200,000	\$0
Year Total			\$100,000	\$0	\$0	\$9,890,000	\$0	\$4,400,000	\$0	\$0	\$120,000	\$1,200,000	\$0	\$0	\$0	\$860,000	\$0	\$0	\$0	\$0	\$9,000,000	\$0	\$25,570,000	\$77,500,000
	1						W			Unsewered Areas														
NDSTP and Hagatna STP Unsewered Properties – Sewer Hookups ⁵	RC/Other	17						\$1,300,000		\$1,300,000		\$1,300,000		\$1,300,000		\$1,300,000							\$6,500,000	\$0
NDSTP and Hagatna STP Unsewered Properties - New Sewers 6	RC/Other	17							\$2,700,000		\$2,700,000		\$2,700,000		\$2,700,000		\$2,700,000		\$2,700,000		\$2,700,000		\$18,900,000	\$21,600,000
NDSTP and Hagatna STP Unsewered Properties - Additional Sewer Hook-ups ⁵	SC/Other	13.8										\$1,250,000		\$1,250,000		\$1,250,000		\$1,250,000		\$1,250,000		\$1,250,000	\$7,500,000	\$7,500,000
against the state of the state																								
South System Sewer Hook-ups ⁵	RC	17																\$1,500,000		\$1,500,000		\$1,500,000	\$4,500,000	\$3,000,000
	RC	17	\$0	\$0	\$0	\$0	\$0		\$2,700,000		\$2,700,000	\$2,550,000	\$2,700,000	\$2,550,000	\$2,700,000	\$2,550,000	\$2,700,000	\$1,500,000 \$2,750,000	\$2,700,000	\$1,500,000 \$2,750,000	\$2,700,000		\$4,500,000 \$37,400,000	
South System Sewer Hook-ups ⁵ Year Total	RC		\$0	\$0	\$0	\$0	\$0		\$2,700,000 Collection Sys		\$2,700,000	\$2,550,000	\$2,700,000		\$2,700,000		\$2,700,000		\$2,700,000		\$2,700,000		\$37,400,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair	RC / SR/OMR	25.8	\$0 \$84,000 \$54,000	\$0	\$0	\$0	\$0				\$2,700,000	\$2,550,000	\$2,700,000		\$2,700,000		\$2,700,000		\$2,700,000		\$2,700,000		\$37,400,000 \$84,000	
South System Sewer Hook-ups ⁵ Year Total Manhote Frame Seal Repair Agat Manhote Rehabilitation	RC / SR/OMR SR/OMR	25.8 25.8	\$54,000	\$0	\$0	\$0	\$0	Wastewater	Collection Sys	tem - Other				\$2,550,000		\$2,550,000		\$2,750,000		\$2,750,000		\$2,750,000	\$37,400,000 \$84,000 \$54,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷	SR/OMR SR/OMR SR/OMR	25.8 25.8 25.8	\$54,000 \$610,000	\$610,000 \$1,100,000	\$610,000	\$610,000	\$610,000 \$3,000,000	Wastewater \$610,000	Collection Sys \$610,000	tem - Other \$610,000	\$610,000	\$610,000	\$610,000	\$2,550,000 \$610,000	\$610,000	\$2,550,000 \$610,000	\$610,000	\$2,750,000	\$610,000	\$2,750,000 \$610,000	\$610,000	\$2,750,000 \$610,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷	SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR	25.8 25.8	\$54,000 \$610,000 \$1,100,000	\$1,100,000	\$1,100,000	\$2,000,000	\$2,000,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷	SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR	25.8 25.8 25.8	\$54,000 \$610,000			\$2,000,000		\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000	\$610,000	\$610,000	\$2,550,000 \$610,000	\$610,000	\$2,550,000 \$610,000	\$610,000	\$2,750,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000	\$2,750,000 \$610,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total	SR/OMR SR/OMR SR/OMR SR/OMR	25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000	\$1,100,000	\$1,100,000	\$2,000,000 \$2,610,000	\$2,000,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000 \$49,638,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement	SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR	25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000	\$1,100,000	\$1,100,000	\$2,000,000	\$2,000,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement	RC SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED	25.8 25.8 25.8 25.8 25.8 58.9 45.1	\$54,000 \$610,000 \$1,100,000	\$1,100,000	\$1,100,000	\$2,000,000 \$2,610,000	\$2,000,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$840,000 \$54,000 \$12,200,000 \$37,300,000 \$49,638,000 \$3,200,000 \$2,000,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities PlanvDesign for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities PlanvDesign for the Baza Gardens STP Replacement Baza Gardens STP Replacement	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED	25.8 25.8 25.8 25.8 25.8 58.9 58.9 45.1 45.1	\$54,000 \$610,000 \$1,100,000 \$1,848,000	\$1,100,000	\$1,100,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000 \$49,638,000 \$3,200,000 \$2,000,000 \$18,000,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatha STP Improvements & Effluent WWPS	SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED RC/SR/SRED SR/SRED/SC SR/SRED/SC	25.8 25.8 25.8 25.8 25.8 58.9 45.1 45.1 41.9	\$54,000 \$610,000 \$1,100,000 \$1,848,000	\$1,100,000	\$1,100,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000 \$49,638,000 \$3,200,000 \$2,000,000 \$1,900,000 \$1,900,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatan STP Improvements & Effluent WWPS Hagatan STP Improvements & Effluent WWPS	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC	25.8 25.8 25.8 25.8 25.8 25.8 45.1 45.1 44.1 41.9	\$54,000 \$610,000 \$1,100,000 \$1,848,000	\$1,100,000	\$1,100,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000 \$49,638,000 \$3,200,000 \$3,000,000 \$1,900,000 \$1,900,000 \$18,000,000	
South System Sewer Hook-ups ⁵ Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatna STP Improvements & Effluent WWPS Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for than Facilities Plan/Design for The Hagatna STP Expansion	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED RC/SR/SRED RC/SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC	25.8 25.8 25.8 25.8 25.8 58.9 58.9 45.1 41.9 41.9 41.9	\$54,000 \$610,000 \$1,100,000 \$1,848,000	\$1,100,000	\$1,100,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000 \$49,638,000 \$3,200,000 \$3,000,000 \$18,000,000 \$19,000,000 \$19,000,000 \$19,000,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatian STP Improvements & Effluent WWPS Hagatian STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion	RC SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED RC/SR/SRED SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SMED/SC SR/SMED/SC SR/SMED/SC SR/SMED/SC SR/SMED/SC SR/SMED/SC SR/SMED/SC SR/SMED/SC	25.8 25.8 25.8 25.8 25.8 25.8 58.9 58.9 45.1 45.1 41.9 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000	\$1,100,000	\$1,100,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000 \$49,636,000 \$3,200,000 \$2,000,000 \$1,900,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000 \$420,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities PlanvDesign for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities PlanvDesign for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities PlanvDesign for the Hagatna STP Improvements & Effluent WWPS Facilities PlanvDesign for Inarajan STP Expansion Inarajan STP Expansion Facilities PlanvDesign for the Northern District STP – Biosolids	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED RC/SR/SRED RC/SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC	25.8 25.8 25.8 25.8 25.8 25.8 58.9 45.1 45.1 41.9 41.9 25.8 25.8 30.1	\$54,000 \$610,000 \$1,100,000 \$1,848,000	\$1,100,000	\$1,100,000 \$1,710,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000 \$49,638,000 \$3,200,000 \$2,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$190,000 \$23,200,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatan STP Improvements & Effluent WWPS Hagatan STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OM&R SR/OM&R RC/S/SR	25.8 25.8 25.8 25.8 25.8 25.8 58.9 58.9 45.1 45.1 41.9 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000	\$1,100,000	\$1,100,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$1,900,000 \$1,900,000	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000 \$49,636,000 \$3,200,000 \$2,000,000 \$1,900,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000 \$420,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatina STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion	RC SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED RC/SR RC/SR RC/SR RC/SR RC/SR	58.9 58.9 58.9 58.9 45.1 44.1 44.9 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000	\$1,100,000	\$1,100,000 \$1,710,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 stewater Facilit	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$37,300,000 \$49,638,000 \$30,000,000 \$3,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000 \$2,000,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatan STP Improvements & Effluent WWPS Hagatan STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion - Biosolids	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED/SR	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.9 45.1 45.1 44.9 44.9 25.8 25.8 30.1	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000	\$1,100,000	\$1,100,000 \$1,710,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 Was	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$1,900,000 \$1,900,000	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$12,200,000 \$12,200,000 \$37,300,000 \$49,638,000 \$30,000,000 \$2,000,000 \$18,000,000 \$19,000,000 \$19,000,000 \$19,000 \$2,300,000 \$2,300,000 \$2,300,000 \$2,300,000 \$2,300,000 \$2,300,000 \$11,000,000 \$11,000,000	
South System Sewer Hook-ups ⁵ Year Total Manhote Frame Seal Repair Agat Manhote Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Baza Gardens STP Improvements & Effluent WWPS Hagattan STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP - Biosolids Northem District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northem District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Worthern District STP Expansion Facilities Plan/Design for the Worthern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED/SR/SRED SR/SRED SR/SRED SR/SRED SR/OM&R SR/OM&R SR/OM&R	5.8 2	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000	\$1,100,000	\$1,100,000 \$1,710,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000	Wastewater \$610,000 \$2,000,000 \$2,610,000 Was \$2,600,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$1,900,000 \$1,900,000	\$610,000 \$2,000,000 \$2,610,000 ies	\$610,000 \$2,000,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$37,300,000 \$37,300,000 \$30,000,000 \$2,000,000 \$1,900,000 \$1,900,000 \$1,900,000 \$420,000 \$420,000 \$21,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Facilities Plan/Design for the Hagatan STP Improvements & Effluent WWPS Hagatan STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED SR/SRED/SC SR/SRED/SC SR/OM&R RC/SR SR/OM&R RC/SR SR/SRED	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000	\$1,100,000	\$1,100,000 \$1,710,000	\$2,000,000 \$2,610,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 Wa : \$2,600,000 \$2,600,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$2,610,000 \$18,000,000 \$1,900,000 \$1,200,000 \$1,200,000 \$1,200,000 \$1,200,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$12,200,000 \$12,200,000 \$37,300,000 \$49,638,000 \$30,000,000 \$30,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$14,000,000	
South System Sewer Hook-ups ⁵ Year Total Manhote Frame Seal Repair Agat Manhote Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Baza Gardens STP Improvements & Effluent WWPS Hagattan STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP - Biosolids Northem District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northem District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Worthern District STP Expansion Facilities Plan/Design for the Worthern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED/SR/SRED SR/SRED SR/SRED SR/SRED SR/OM&R SR/OM&R SR/OM&R	5.8 2	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000	\$1,100,000	\$1,100,000 \$1,710,000	\$2,000,000 \$2,610,000	\$2,000,000 \$2,610,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$37,300,000 \$37,300,000 \$30,000,000 \$2,000,000 \$1,900,000 \$1,900,000 \$1,900,000 \$420,000 \$420,000 \$21,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatna STP Improvements & Effluent WWPS Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Unatac-Merizo STP Improvements Unatac-Merizo STP Improvements Pago Socio STP Conversion Year Total	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED RC/SR/SRED RC/SR/SRED SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED SR/OM&R SR/OM&R SR/OM&R SR/OM&R	5.8 2	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000	\$1,100,000	\$1,100,000 \$1,710,000	\$2,000,000 \$2,610,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$2,610,000 \$18,000,000 \$1,900,000 \$1,200,000 \$1,200,000 \$1,200,000 \$1,200,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$37,300,000 \$49,638,000 \$3,200,000 \$2,000,000 \$1,900,000 \$1,900,000 \$420,000 \$420,000 \$1,200,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatina STP Improvements & Effluent WWPS Hagatina STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Monthern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Pago Bay, etc)	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OMBR SR/OMBR SR/OMBR SR/SRED SR/OMBR SR/OMBR	58.9 58.9 58.9 58.9 45.1 44.1 41.9 25.8 25.8 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000	\$1,100,000	\$1,100,000 \$1,710,000	\$2,000,000 \$2,610,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$30,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$14,000,000 \$14,000,000 \$14,000,000 \$14,000,000 \$14,000,000 \$14,270,000 \$142,470,000 \$142,470,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for Inarajan STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Pago Bay, etc)	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED SR/OM&R SR/OM SR	5.8 2	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000	\$1,100,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000	\$2,000,000 \$2,610,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$2,000,000 \$2,000,000 \$1,900,000 \$	
South System Sewer Hook-ups [§] Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatina STP Improvements & Effluent WWPS Hagatina STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS)	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED RC/SR/SRED RC/SR/SRED SR/SRED/SC SR/OM&R LS/SR LS/SR	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$650,000	\$1,100,000	\$1,100,000 \$1,710,000	\$2,000,000 \$2,610,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$49,638,000 \$3,200,000 \$30,000,000 \$30,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$140,000 \$2,300,000 \$21,000,000 \$11	
South System Sewer Hook-ups [§] Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatna STP Improvements & Effluent WWPS Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for the Northern District STP - Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Ogene, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS)	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/OM&R RC/SR RC/SR SR/GRED	5.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 45.1 41.9 41.9 41.9 41.9 25.8 25.8 25.8 25.8 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$650,000	\$1,100,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000	\$2,000,000 \$2,610,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$30,000,000 \$19,000,000 \$11,000,000	
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Facilities Plan/Design for the Hagatina STP Improvements & Effluent WWPS Hagatina STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Northern District STP Expansion Northern District STP	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OM&R RC/SR SR/OM&R RC/SR SR/SRED SR/SRED SR/SRED SR/SRED SR/SRED SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R LS/SR LS/SR LS/SR LS/SR LS/SR	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$650,000	\$1,100,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000	\$2,000,000 \$2,610,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$49,638,000 \$30,000,000 \$30,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$112,470,000 \$112,470,000 \$112,470,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000	\$32,100,00 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Baza STP Improvements & Effluent WWPS Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for the Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP - Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Agat-Santa Rita STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OM&R RC/SR SR/OM&R RC/SR SR/OM&R LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR	5.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8 45.1 41.9 41.9 41.9 41.9 25.8 25.8 25.8 25.8 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1 30.1	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$650,000	\$1,100,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$250,000	\$2,000,000 \$2,610,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$30,000,000 \$19,000,000 \$11,000,000	\$32,100,00 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
South System Sewer Hook-ups [§] Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Baza Gardens STP Replacement Baza In Provincements & Effluent WWPS Hagatha STP Improvements & Effluent WWPS Facilities Plan/Design for the Hagatha STP Improvements & Effluent WWPS Facilities Plan/Design for the Northern District STP - Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion - Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Worthern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (TPP Elec	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OM&R RC/SR SR/OM&R RC/SR SR/OM&R LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR	58.9 58.9 58.9 58.9 45.1 41.9 41.9 41.9 25.8 25.8 30.1	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$650,000 \$2,000,000 \$400,000	\$1,100,000 \$1,710,000 \$1,710,000 \$0 \$350,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$250,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$33,200,000 \$30,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$110,000,000 \$1	\$32,100,00 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
South System Sewer Hook-upss Wanhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program Wastewater Collection System Replacement/Rehabilitation Program Wastewater Collection System Replacement/Rehabilitation Program Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Baza Gardens STP Replacement Baza Gardens STP Replacement Baza Gardens STP Replacement Baza Gardens STP Replacement Bazilities Plan/Design for the Hagatna STP Improvements & Effluent WWPS Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Worthern District STP Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Poorthern District STP Electrical Upgrade - Umatac-Merizo STP Wassewater Pumping Station Electrical Upgrade	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED RC/SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED SR/OM&R RC/SR SR/OM&R LS/SR RC/SR	25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$2,000,000 \$400,000	\$1,100,000 \$1,710,000 \$1,710,000 \$0 \$350,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$250,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$20,000,000 \$2,000,000 \$1,900,000 \$1,900,000 \$1,900,000 \$1,900,000 \$1,900,000 \$1,900,000 \$1,900,000 \$1,900,000 \$1,900,000 \$1,900,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000	\$32,100,00
South System Sewer Hook-upss Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program Wastewater Collection System Replacement/Rehabilitation Program Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Facilities Plan/Design for the Hagatha STP Improvements & Effluent WWPS Facilities Plan/Design for the Hagatha STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Facilities Plan/Design for the Northern District STP - Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion - Biosolids Facilities Plan/Design for the Worthern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Cayinero, etc) Electrical Upgrade - Water Booster Stations (Cher WBPS) Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Northern District STP	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OM&R RC/SR SR/OM&R RC/SR SR/OM&R LS/SR RC/SR	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$650,000 \$2,000,000 \$400,000	\$1,100,000 \$1,770,000 \$1,770,000 \$350,000 \$1,900,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$250,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$30,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$110,000,000 \$22,300,000 \$21,000,000 \$112,477,000 \$112,477,000 \$112,477,000 \$250,000 \$250,000 \$250,000 \$250,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000 \$300,000	\$32,100,00
South System Sewer Hook-upss Wanhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program? Wastewater Collection System Replacement/Rehabilitation Program? Wastewater Collection System Replacement/Rehabilitation Program? Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for In Hagatna STP Improvements & Effluent WWPS Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for In International Structure Struct	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED SR/OM&R RC/SR SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R LS/SR RC/SR RC/SR RC/SR RC/SR RC/SR	5.8 2	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$2,000,000 \$400,000	\$1,100,000 \$1,710,000 \$1,710,000 \$0 \$350,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$250,000 \$300,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$30,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$11,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000	\$32,100,00
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Baza Gardens STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Facilities Plan/Design for Inarajan STP Expansion Facilities Plan/Design for the Northern District STP – Biosolids Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Baza Garden STP Electrical Upgrade - Water Booster Stations (Other WBPS)	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/OM&R RC/SR SR/OM&R RC/SR SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R LS/SR RC/SR	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$2,000,000 \$400,000	\$1,100,000 \$1,770,000 \$1,770,000 \$350,000 \$1,900,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$250,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,520,000 \$2,520,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$27,300,000 \$37,300,000 \$30,000,000 \$30,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$140,000 \$22,300,000 \$21,000,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$1100,000 \$	\$32,100,00
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Baza Gardens STP Replacement Baza Gardens STP Replacement Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatna STP Improvements & Effluent WWPS Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP - Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Worthern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Odayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Northern District STP Electrical Upgr	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED/SR/SR/SRED SR/OM&R RC/SR SR/OM&R SR/OM&R SR/OM&R LS/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR	5.8 2	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$650,000 \$2,000,000 \$400,000 \$250,000	\$1,100,000 \$1,770,000 \$1,770,000 \$1,900,000 \$1,900,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$2,500,000 \$2,500,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000 \$300,000	\$610,000 \$2,000,000 \$2,610,000 Was \$2,600,000 \$2,600,000	\$610,000 \$2,000,000 \$2,000,000 \$2,610,000 \$18,000,000 \$1,900,000 \$1,200,000 \$2,520,000 \$420,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$30,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$11,000,000	\$32,100,00
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Baza Bardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Baza Bardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatina STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Mater Wells Electrical Upgrade - Mater Santa Rita STP Electrical Upgrade - Northern District STP Electrical Upgrade - Northern District STP Electrical Upgrade - Water Wells Electrical Upgrad	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED/SR/SR/SRED SR/OM&R RC/SR SR/OM&R SR/OM&R SR/OM&R LS/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$2,000,000 \$400,000	\$1,100,000 \$1,770,000 \$1,770,000 \$350,000 \$1,900,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$250,000 \$300,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000	\$610,000 \$2,000,000 \$2,610,000 \$2,600,000 \$2,600,000 \$140,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$18,000,000 \$1,900,000 \$1,200,000 \$1,200,000 \$1,200,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$27,300,000 \$37,300,000 \$30,000,000 \$30,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$140,000 \$22,300,000 \$21,000,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$112,470,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$1100,000 \$	\$32,100,00
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Baza Gardens STP Replacement Baza Gardens STP Replacement Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatna STP Improvements & Effluent WWPS Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for Inarajan STP Expansion Inarajan STP Expansion Facilities Plan/Design for the Northern District STP - Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Worthern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Odayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Northern District STP Electrical Upgr	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R SR/OM&R LS/SR RC/SR	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$400,000 \$1,000,000 \$1,000,000 \$400,000 \$4,300,000	\$1,100,000 \$1,770,000 \$1,770,000 \$0 \$350,000 \$1,900,000 \$1,100,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$2,500,000 \$3,050,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000 \$800,000 \$850,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000 \$300,000	\$610,000 \$2,000,000 \$2,610,000 Was \$2,600,000 \$2,600,000	\$610,000 \$2,000,000 \$2,000,000 \$2,610,000 \$18,000,000 \$1,900,000 \$1,200,000 \$2,520,000 \$420,000	tem - Other \$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$30,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$11,000,000	\$32,100,00
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Baza Gardens STP Improvements & Effluent WWPS Facilities Plan/Design for Ine Hagatina STP Expansion Inarajan STP Improvements & Effluent WWPS Facilities Plan/Design for Ine Northern District STP – Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Worthern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Agat-Santa Rita STP Electrical Upgrade - Mater Moster STP Electrical Upgrade - Mater Moster STP Electrical Upgrade - Moster Moster STP Electrical Upgrade - Moster District STP Electrical Upgrade - Moster District STP Electrical Upgrade - Moster District STP Electrical Upgrade - Moster Phase 1 GWA SCADA System - Phase 2 GWA SCADA System - Phase 3 GWA SCADA System - Phase 4 Year Total	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED RC/SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED SR/OM&R RC/SR SR/OM&R LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$2,000,000 \$2,000,000 \$250,000 \$440,000 \$440,000	\$1,100,000 \$1,770,000 \$1,770,000 \$0 \$350,000 \$1,900,000 \$1,100,000 \$3,350,000 \$1,60,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$2,500,000 \$3,050,000 \$160,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000 \$600,000 \$850,000 \$850,000 \$160,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000 \$300,000 \$300,000 \$160,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$2,610,000 \$2,600,000 \$2,600,000 \$2,600,000 \$2,600,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,510,000 \$1,200,000 \$2,520,000 \$2,520,000 \$2,520,000 \$2,520,000 \$2,520,000	\$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000 \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$420,000 \$420,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$0 \$0	\$2,750,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$0	\$2,750,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$2,610,000 \$	\$37,400,000 \$84,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$49,638,000 \$3,200,000 \$30,000,000 \$30,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$10,000,000 \$11,000,000	\$32,100,00
South System Sewer Hook-ups ⁵ Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program ⁷ Wastewater Collection System Replacement/Rehabilitation Program ⁷ Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Baza Gardens STP Replacement Baza Individual Stram Baza Baza Baza Baza Baza Baza Baza Ba	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED RC/SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED/SC SR/SRED SR/OM&R RC/SR SR/OM&R LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR LS/SR RC/SR RC/SR RC/SR RC/SR RC/SR RC/SR	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$400,000 \$1,000,000 \$1,000,000 \$400,000 \$4,300,000	\$1,100,000 \$1,770,000 \$1,770,000 \$0 \$350,000 \$1,900,000 \$1,100,000 \$3,350,000 \$1,60,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$2,500,000 \$3,050,000 \$160,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000 \$600,000 \$850,000 \$850,000 \$160,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000 \$300,000 \$300,000 \$160,000	\$610,000 \$2,000,000 \$2,610,000 Was \$2,600,000 \$2,600,000	\$610,000 \$2,000,000 \$2,010,000 \$2,610,000 \$1,900,000 \$1,900,000 \$1,200,000 \$2,510,000 \$1,200,000 \$2,520,000 \$2,520,000 \$2,520,000 \$2,520,000 \$2,520,000	\$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000 \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$18,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$2,550,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$30,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$19,000,000 \$11,000,000	\$32,100,000 \$1 \$1 \$1 \$2 \$32,100,000 \$2 \$32,100,000 \$32,100,000 \$33,100,000 \$34,100,000 \$35
South System Sewer Hook-upss Year Total Manhole Frame Seal Repair Agat Manhole Rehabilitation Wastewater Collection System Recurring Inspection Program Wastewater Collection System Replacement/Rehabilitation Program Year Total Facilities Plan/Design for the Agat-Santa Rita STP Replacement Agat-Santa Rita STP Replacement Facilities Plan/Design for the Baza Gardens STP Replacement Baza Gardens STP Replacement Facilities Plan/Design for the Hagatan STP Improvements & Effluent WWPS Hagatna STP Improvements & Effluent WWPS Facilities Plan/Design for International Fractifies Plan/Design for International Fractifies Plan/Design for International Fractifies Plan/Design for the Northern District STP – Biosolids Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Northern District STP Expansion Facilities Plan/Design for the Northern District STP Expansion Facilities Plan/Design for the Worthern District STP Expansion Facilities Plan/Design for the Umatac-Merizo STP Improvements Pago Socio STP Conversion Year Total Electrical Upgrade - Water Booster Stations (Pago Bay, etc) Electrical Upgrade - Water Booster Stations (Gayinero, etc) Electrical Upgrade - Water Booster Stations (Other WBPS) Electrical Upgrade - Baza Garden STP Electrical Upgrade - Dumatac-Merizo STP Wastewater Pumping Station Electrical Upgrade GWA SCADA System - Phase 1 GWA SCADA System - Phase 2 GWA SCADA System - Phase 3 GWA SCADA System - Phase 4	RC SR/OMR SR/OMR SR/OMR SR/OMR SR/OMR RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC RC/SR/SRED/SC SR/SRED/SC SR/SRED SR/S	25.8 25.8 25.8 25.8 25.8 25.8 25.8 25.8	\$54,000 \$610,000 \$1,100,000 \$1,848,000 \$500,000 \$500,000 \$1,000,000 \$2,000,000 \$400,000 \$43,000,000 \$43,000,000 \$160,000	\$1,100,000 \$1,770,000 \$1,770,000 \$0 \$350,000 \$1,100,000 \$1,100,000 \$1,100,000 \$1,100,000 \$1,100,000	\$1,100,000 \$1,710,000 \$1,710,000 \$5,000,000 \$5,000,000 \$2,500,000 \$3,050,000 \$160,000	\$2,000,000 \$2,610,000 \$600,000 \$600,000 \$600,000 \$850,000 \$160,000	\$2,000,000 \$2,610,000 \$1,500,000 \$1,500,000 \$300,000 \$160,000 \$160,000	\$610,000 \$2,000,000 \$2,610,000 Waa \$2,600,000 \$2,610,000 \$2,600,000 \$2,600,000 \$2,740,000 \$2,740,000 \$2,740,000 \$2,740,000 \$2,740,000 \$2,740,000	\$610,000 \$2,000,000 \$2,010,000 \$2,010,000 \$2,010,000 \$1,900,000 \$1,900,000 \$1,900,000 \$21,520,000 \$21,	\$610,000 \$2,000,000 \$2,610,000 ies \$30,000,000 \$30,000,000	\$610,000 \$2,000,000 \$2,610,000 \$18,000,000 \$10,000,000 \$28,000,000	\$610,000 \$2,000,000 \$2,610,000 \$190,000 \$3,700,000 \$3,890,000	\$610,000 \$2,000,000 \$2,610,000 \$1,800,000 \$1,800,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$420,000 \$420,000	\$610,000 \$2,000,000 \$2,610,000 \$16,000,000 \$16,000,000	\$2,550,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000	\$610,000 \$2,000,000	\$2,750,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$0	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$0 \$0	\$2,750,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$2,610,000 \$2,610,000 \$2,610,000 \$2,610,000 \$2,610,000 \$2,610,000 \$2,000,000 \$2	\$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$0 \$0 \$0 \$0 \$0	\$2,750,000 \$610,000 \$2,000,000 \$2,610,000 \$2,610,000 \$2,610,000 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$37,400,000 \$84,000 \$54,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$12,200,000 \$37,300,000 \$30,000,000 \$30,000,000 \$19,000,000 \$18,000,000 \$18,000,000 \$18,000,000 \$11,000,000 \$11,000,000 \$11,000,000 \$112,4770,000 \$112,4770,000 \$22,000,000 \$350,000 \$350,000 \$350,000 \$350,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$110,000,000 \$11,000,000	\$32,100,000 \$1 \$1 \$2 \$32,100,000 \$31 \$32,100,000 \$32,100,000 \$33,100,000 \$34,100,000 \$34,100,000 \$35,1
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30-Year Total

Cost based on (10% design, 5% Services during construction, 7% Construction Management, 50% Planning Level Adjustment)

Costs are 2007 Dollars

Project Types: RC-Regulatory Compliance; SR=System Reliability; SRED=System Redundancy; SC=System Capacity; OMR=OM&R; LS=Life & Safety

Costs for design, planning, and construction of full treatment for GWUDI compliance; If filtration avoidance is allowed, total costs will be approximately \$5,000,000 after transmission lines are complete

Funded by Sewer Hook-up Revolving Fund

GWW may not be able to provide new sewers to existing customers without a connection fee. New legislation or alternative funding sources may be required.

Costs for annual recurring cost to inspect and replace/rehabilitate the gravity and force main systems

Costs for Years 20 to 30 do not include recurring costs like Inspection and Annual Replacement/Rehab, but only costs deferred beyond Year 20 in Base Case.

Exhibit 15A – CIP Definition

O&M vs. CIP Definitions and Examples

<u>Purpose:</u> To provide some simplified examples of the type of expenditures that should be recorded as Operation and Maintenance Expenses and those that should be capitalized and recorded as an asset on the books of GWA. Any questions regarding these matters should be forwarded to the GWA Accounting Department.

<u>Definition of an operation and maintenance expense</u>: Routine maintenance and operating costs that enables the asset to function in the manner in which it was intended. Assets whose useful life is expected to be less than one year is an operation and maintenance expense. An example of this is motor oil in a car. Motor oil is required to be changed periodically in order for the car to function in the manner it was intended. Thus, motor oil is an operation and maintenance expense. Similarly, a starter or a distributor would likely be operation and maintenance costs as an owner of a vehicle has a reasonable expectation that these items would need to be replaced at some time during the vehicle's useful life if the expected useful life is to be achieved.

Definition of a capital improvement cost: A new asset with a value greater than \$750 and a life expectancy of greater than one year is a capital asset. A capital cost should also be recorded if an expenditure extends the useful life of the asset or if the expenditure significantly changes the ability of the asset to function. The purchase of a new vehicle is the purchase of an asset with a value greater than \$750 with a life expectancy of greater than one year. If the engine is blown in the first year and replacement is required, the cost would be an expense because a new engine on a new car would not extend the life of the vehicle. If an engine is blown in the 7th year the vehicle is in existence and there are other improvements made to extend the useful life of the asset beyond its expected useful life when it was first purchased, then the expenditures would be a capital asset.

Specific examples

Hagåtña Treatment Plant: The plant is undergoing a substantial refurbishment which will substantially alter and improve its ability to perform the function for which it was intended. The upgrades will likely increase the useful life of the asset. For these reasons, the costs to refurbish the Hagåtña Treatment Plant would be capitalized.

Water Distribution Line Replacement: The lines being replaced are at or near the end of their useful life. The new lines would substantially extend the useful life of the asset. The cost of replacing the water distribution lines would be capitalized.

Fence Construction: If the fence is new or is replacing a fence that is at or near the end of its useful life, the cost of the fence construction would be capitalized.

Storage Tank Repainting: There is an expectation that a storage tank should be repainted every 3-5 years to ensure the tank is properly protected from corrosion, etc. Painting will not lead to the extension of the life of a tank. Therefore, storage tank repainting is not capitalizable.

Damage Repair: When an asset is damaged due to loss, the dollar value of the loss should be immediately reduced from its book value. When costs are incurred to restore the useful life of the asset to that which it had prior to the loss event, the costs should be capitalized. If the book value of the asset has not been reduced, any costs to restore it to its pre-loss condition could not be capitalized.

Exhibit 15B - Cost Estimate Classification Matrix

COST ESTIMATE CLASSIFICATION MATRIX FOR THE PROCESS INDUSTRIES

The five estimate classes are presented in figure 1 in relationship to the identified characteristics. Only the level of project definition determines the estimate class. The other four characteristics are secondary characteristics that are generally correlated with the level of project definition, as discussed in the generic standard. The characteristics are typical for the process industries but may vary from application to application.

This matrix and guideline provide an estimate classification system that is specific to the process industries. Refer to the generic standard for a general matrix that is non-industry specific, or to other addendums for guidelines that will provide more detailed information for application in other specific industries. These will typically provide additional information, such as input deliverable checklists to allow meaningful categorization in those particular industries.

	Primary Characteristic	tic Secondary Characteristic										
ESTIMATE CLASS	LEVEL OF PROJECT DEFINITION Expressed as % of complete definition	END USAGE Typical purpose of estimate	METHODOLOGY Typical estimating method	EXPECTED ACCURACY RANGE Typical variation in low and high ranges [a]	PREPARATION EFFORT Typical degree of effort relative to least cost index of 1 [b]							
Class 5	0% to 2%	Concept Screening	Capacity Factored, Parametric Models, Judgment, or Analogy	L: -20% to -50% H: +30% to +100%	1							
Class 4	1% to 15%	Study or Feasibility	Equipment Factored or Parametric Models	L: -15% to -30% H: +20% to +50%	2 to 4							
Class 3	10% to 40%	Budget, Authorization, or Control	Semi-Detailed Unit Costs with Assembly Level Line Items	L: -10% to -20% H: +10% to +30%	3 to 10							
Class 2	30% to 70%	Control or Bid/ Tender	Detailed Unit Cost with Forced Detailed Take-Off	L: -5% to -15% H: +5% to +20%	4 to 20							
Class 1	50% to 100%	Check Estimate or Bid/Tender	Detailed Unit Cost with Detailed Take- Off	L: -3% to -10% H: +3% to +15%	5 to 100							

Notes:

Figure 1. – Cost Estimate Classification Matrix for Process Industries

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[[]a] The state of process technology and availability of applicable reference cost data affect the range markedly. The +/- value represents typical percentage variation of actual costs from the cost estimate after application of contingency (typically at a 50% level of confidence) for given scope.

contingency (typically at a 50% level of confidence) for given scope.

[b] If the range index value of "1" represents 0.005% of project costs, then an index value of 100 represents 0.5%.

Estimate preparation effort is highly dependent upon the size of the project and the quality of estimating data and tools.

Exhibit 15B - Cost Estimate Classification Matrix (continued)

CLASS 5 ESTIMATE

Description:

Class 5 estimates are generally prepared based on very limited information, and subsequently have wide accuracy ranges. As such, some companies and organizations have elected to determine that due to the inherent inaccuracies, such estimates cannot be classified in a conventional and systemic manner. Class 5 estimates, due to the requirements of end use, may be prepared within a very limited amount of time and with little effort expended—sometimes requiring less than an hour to prepare. Often, little more than proposed plant type, location, and capacity are known at the time of estimate preparation.

Level of Project Definition Required:

0% to 2% of full project definition.

End Usage:

Class 5 estimates are prepared for any number of strategic business planning purposes, such as but not limited to market studies, assessment of initial viability, evaluation of alternate schemes, project screening, project location studies, evaluation of resource needs and budgeting, long-range capital planning, etc.

Estimating Methods Used:

Class 5 estimates virtually always use stochastic estimating methods such as cost/capacity curves and factors, scale of operations factors, Lang factors, Hand factors, Chilton factors, Peters-Timmerhaus factors, Guthrie factors, and other parametric and modeling techniques.

Expected Accuracy Range:

Typical accuracy ranges for Class 5 estimates are - 20% to -50% on the low side, and +30% to +100% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances.

Effort to Prepare (for US\$20MM project):

As little as 1 hour or less to perhaps more than 200 hours, depending on the project and the estimating methodology used

ANSI Standard Reference Z94.2-1989 Name:

Order of magnitude estimate (typically -30% to +50%).

Alternate Estimate Names, Terms, Expressions, Synonyms:

Ratio, ballpark, blue sky, seat-of-pants, ROM, idea study, prospect estimate, concession license estimate, guesstimate, rule-of-thumb.

Figure 2a. - Class 5 Estimate

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