

PUC COUNSEL REPORT

Background

On October 21, 2010, the Guam Waterworks Authority [GWA] filed its Petition for Contract Review to authorize GWA to Issue Water and Wastewater Revenue Bonds.¹ Therein GWA indicates that, together with the Consolidated Commission on Utilities [CCU] and the Guam Economic Development Authority [GEDA], it has developed a borrowing plan for GWA. GWA plans to borrow up to \$118.825M in water and Wastewater revenue bonds.² The proceeds of the 2010 Bonds will be used for the following purposes: (1) to fund GWA's Bond-financed Capital Improvement Project needs through FY2013; (2) to provide for capitalized interest through September 30, 2013; (3) to fund a deposit to the common Bond Reserve Fund; and (4) to pay costs incurred in connection with the issuance of the 2010 Bonds.³ From the total amount of the bonds, \$84.102M will be used to fund capital improvements, including Water Production, Treatment & Distribution (\$32,464,000), Water Storage (\$15,497,000), Wastewater Collection and Treatment (\$11,420,000), Electrical Protection and Upgrades (\$3,951,000), SCADA (\$5,000,000), General Plant (\$13,070,000), and Miscellaneous Projects (\$2,700,000).⁴

¹ GWA's Petition for Contract Review to Authorize GWA to issue Guam Waterworks Authority Water and Wastewater Revenue Bonds, GWA Docket 10-03, filed October 21, 2010.

² Id.

³ Guam Waterworks Authority 2010 Revenue Bonds Overview and Market Update, GWA Docket 10-03, filed October 22, 2010.

⁴ See Preliminary Official Statement, GWA Docket 10-03, filed October 21, 2010, at p. 8; and Petition for Contract Review to Authorize GWA to issue Water and Wastewater Revenue Bonds, at p. 1.

The 2010 Bonds will have a final maturity of July 1, 2040.⁵ The credit ratings for the bonds have not yet been fixed, but GWA will notify PUC as soon as such ratings are available.⁶ The interest rate on the bonds is also not yet fixed, but Section 2 of Public Law 30-145 establishes the bonds shall bear interest at a net yield to the bond holders not exceeding seven and one-half percent (7.5% per annum).⁷

On October 19, 2010, the Consolidated Commission on Utilities, in Resolution No. ___ authorized the issuance of one or more series of bonds in an aggregate principal amount not to exceed \$118,825,000 to finance the projects, to pay the costs of issuance, to pay for credit enhancement, if any, to pay for capitalized interest and to fund a deposit to a debt service reserve fund.⁸ However, authorization for execution of the bonds is "subject to the approval of GEDA and the PUC..."⁹

Public Law 28-71, as amended Public Law 30-145, authorizes GWA to issue revenue bonds for the purpose of financing improvements to the water and wastewater systems of Guam.

Public Law 28-71 was signed into law by the Governor on November 3, 2005. Therein the Legislature found that "the condition of Guam's water and wastewater infrastructure has seriously deteriorated over the past decades." ¹⁰ The Legislature recognized that GWA needed up to \$450M to fund projects required by the Stipulated Order and for rebuilding, rehabilitating and modernizing the system. ¹¹ The Consolidated Commission on Utilities was empowered in incur indebtedness through the issuance of bonds, but subject to the requirements of Title 12 G.C.A. §12004. ¹²

Specifically, the Legislature approved the issuance and sale by GWA of revenue bonds in one or more series, up to a principal amount not to exceed \$220,000,000.¹³ In Public Law 30-145, enacted on May 17, 2010, Section 4 of Public Law 28-71 was amended to raise the allowable net yield to bond holders from 6.5% to an amount not exceeding 7.5%. The raise in allowable interest rate was enacted in recognition of the fact that the

 $^{^{\}rm 5}$ Guam Waterworks Authority 2010, Revenue Bonds Overview and Market Update, GWA Docket 10-03, filed October 21, 2010 at p. 1.

⁶ Conversation between Acting General Manager John Benevente and PUC Legal Counsel on October 26, 2010.

⁷ Public Law 30-145, enacted May 17, 2010, Section 2.

⁸ Consolidated Commission on Utilities Resolution No. ____, enacted October 19, 2010 at p. 3.

⁹ Id. at p. 4.

¹⁰ Public Law 28-71, Section 1.

¹¹ Id.

¹² Id., 12 GCA §14203.

¹³ Public Law 28-71, Section 4.

financial markets may exceed the interest rate limit established in GWA's 2005 bond approval.¹⁴

The Role of the Public Utilities Commission in Approval of the Bond Issuance

The Legislature has established that the issuance of revenue bonds by GWA is "subject to the requirements of Title 12 GCA §12004..."¹⁵ In accordance with 12 GCA §12004, a utility such as GWA cannot enter into any contractual agreements or obligation which could increase rates and charges prior to the written approval of the Commission..."¹⁶ Pursuant to the Contract Review Protocol for Guam Waterworks Authority, approved by the PUC on October 27, 2005, all externally funded loan obligations and other financial obligations, such as lines of credit, <u>bonds</u>, etc. in excess of \$1,000,000, and any use of said funds, must be approved by the Public Utilities Commission.¹⁷

Furthermore, the Commission must approve this bond issuance by GPA under both Public Law and the Contract Review Protocol before such issuance can be effective. Section 4 of Public Law 28-71, as amended by Public Law, 30-145, sets forth the specific obligations of the PUC with regard to the review of a bond issuance. GWA may only issue bonds subject to the proviso that "the issuance, terms and conditions of the bonds *shall* have been approved by the Guam Public Utilities Commission..."¹⁸

On October 27, 2005, the PUC approved the first issuance of revenue bonds by GWA pursuant to Article 2 of Chapter 14, Title 12, Guam Code Annotated in an aggregate principal amount not to exceed \$110,000,000 to finance capital improvements to the system.¹⁹ At that time, the PUC authorized the Authority to borrow funds through the issuance of a Series 2005 Bonds in the amount of \$110M. Furthermore, the PUC approved the Indenture and Supplemental Indenture governing the issuance of said bonds. The "Indenture" was used for the issuance of the 2005 Revenue Bonds as approved by the Commission.²⁰ In fact, such INDENTURE authorized the issuance of additional series of bonds (in addition to the initial series of bonds).²¹ The 2010 Bond

¹⁴ Public Law 30-145, Section 1.

¹⁵ Public Law 28-71, 12 GCA §14203.

^{16 12} GCA §12004

¹⁷ See Contract Review Protocol for Guam Waterworks Authority, Administrative Docket 00-04, issued October 27, 2005, p. 1.

¹⁸ Public Law 30-145, Section 2.

¹⁹ PUC Order Approving Issuance of Revenue Bonds, Docket 05-10, issued October 27, 2005.

²⁰ Guam Waterworks Authority and Bank of Guam, as Trustee, and U.S. Bank National Association, as Co-Trustee, INDENTURE, dated December 1, 2005.

²¹ Id. at Section 3.04, p. 22.

Series is issued pursuant to, and also governed by the INDENTURE for the 2005 Bond Series. Since the 2005 INDENTURE also governs the 2010 Bond Issuance, the PUC is again required to approve the 2005 INDENTURE. PUC has already approved such INDENTURE pursuant to the October 27, 2005 Order referenced above.

The PUC has long been aware of the intent of GWA to issue this 2010 Revenue Bond Series. The PUC examined and considered the need for such bond issuance in 2009 during the FY09 Rate Case. At that time, the PUC was fully aware that GWA intended to issue revenue bonds; GWA had also filed a petition for approval of issuance of approximately 168M in revenue financed bonds to fund the GWA Master Plan capital projects and the moratorium project.²²

In its FY09 Rate Decision, the PUC approved a four year plan of projected rate increases. A primary driver of such rate increases was the need for GWA to issue revenue bonds. At that time, the PUC approved issuance of bond financing in 2009 in the approximate total amount of \$104 Million, which included revenue financed bonds in the principal amount of \$64M and \$50M for moratorium project bonds. However, GWA has not been able to issue such bonds until now. The PUC also approved the issuance by GWA of revenue financed bonds in a principal amount of not more than \$126.1 Million on or about January 1, 2012. Thus, the matter of bond issuance is not before the Commission for the first time; the Commission has already previously recognized the need of GWA to undertake these bond financed projects and has approved the same.

As is the case with the current bond issuance, the PUC previously approved that the bond issuance would also include three years of capitalized interest and the normal expenses of issuance.²³ Many of the projects included in the approved bond financing in the FY09 Rate Decision, and the Stipulation attached thereto, are now to be funded by the 2010 Revenue Bonds.²⁴

Recommendation for Approval of the issuance, terms and conditions of the GWA Revenue Bonds

Counsel has reviewed, among others, the following documents related to this bond issuance:

²² GWA Emergency Petition, GWA Docket 09-05, filed June 10, 2009.

²³ PUC FY09 Rate Decision, GWA Docket 09-03, filed July 27, 2009.

²⁴ See Attachment B to the Stipulation Re: Rate Relief, GWA Docket 09-03, filed July 14, 2009.

- (1) GWA Petition for Contract Review to Authorize GWA to Issue Guam Waterworks Authority Water and Wastewater Revenue Bonds;
- (2) The GWA INDENTURE, dated December 1, 2005, relating to Guam Waterworks Authority Water and Wastewater System Revenue Bonds;
- (3) Draft of Supplemental Indenture, dated October 8, 2010, by and between the Guam Waterworks Authority, the Bank of Guam, and the U.S. Bank National Association;
- (4) CCU Resolution authorizing the issuance and sale of GWA Water and Wastewater Revenue Bonds, issued October 19, 2010;
- (5) Preliminary Official Statement, draft issued October 8, 2010;
- (6) Consulting Engineers Report;
- (7) The Bond Purchase Agreement;
- (8) Supplemental Continuing Disclosure Agreement;
- (9) Guam Waterworks Authority Credit Presentation to Moody's Investors Service;
- (10) Guam Waterworks Authority 2010 Revenue Bonds Overview and Market Update.

Based Upon his review of the foregoing documents, and for the reasons set forth herein, PUC Counsel recommends that the PUC approve GWA's Request to issue GWA Water and Wastewater Revenue Bonds in the amounts indicated, and in accordance with the terms set forth in GWA's Petition.

(A) The basis for the issuance of the 2010 Revenue Bonds is the 2005 INDENTURE, as supplemented by the Supplemental Indenture.

As previously indicated PUC has already approved the 2005 INDENTURE and should approve or reaffirm its approval herein. It should also approve the Supplemental Indenture (Second Indenture). Said Supplemental Indenture, in accordance with the terms of the 2005 INDENTURE, authorizes issuance of the Series 2010 Bonds. Such indenture is a necessary predicate agreement between GWA, Bank of Guam, and U.S.

Bank National Association so that the 2010 Series Bonds can be appropriately issued. The Supplemental Indenture sets forth the necessary additional requirements to provide for the issuance of the 2010 Revenue Bonds. The Supplemental Indenture follows the standard format used for previous bond issues for GWA and GPA. Having fully reviewed both the INDENTURE and SUPPLEMENTAL INDENTURE, Counsel believes that the provisions contained in those documents establish a viable mechanism through which the 2010 Revenue Bonds may be issued.

The terms and conditions of the bonds, as well as the indentures themselves, have been prepared by the Guam Waterworks Authority's longtime Bond Counsel, the firm of Orrick Herrington & Sutcliffe LLP. Said firm has recommended that the Guam Waterworks Authority use the same indenture forms which have been prepared and submitted to the Public Utilities Commission for approval. Counsel recommends that the Commission approve the issuance, terms, and conditions of the GWA Revenue Bonds, the 2005 INDENTURE, and the Supplemental Indenture. The form of the INDENTURE for these revenue bonds was also established and approved by the Guam Legislature and the Executive branch of the Government of Guam as evidenced by Public Laws 28-71 and Public Law 30-145.25

(B) The Capital Improvement Projects for which GWA seeks to issue the 2010 Revenue Bonds appear to be reasonable, necessary and in the interest of ratepayers.

GWA has presented a reasonable justification for funding the capital improvement projects with the 2010 Revenue Bond issuance. GWA has set forth the specific projects to be funded through Bond Financing in Exhibit A to its Petition, a true and correct copy of which is attached hereto.²⁶ Many of these projects are required to be undertaken by GWA pursuant to the Stipulated Order entered into between GWA and U.S. Environmental Protection Agency on June 5, 2003. Therein GWA was required to make specified improvements to the System. The Authority developed a five year capital improvement program focused on rehabilitation and upgrade of the system.

²⁵ Public Law 30-145, Section 2 (amending Section 4 of Public Law 28-71 ("...such bonds...shall be issued pursuant to an Indenture in substantially the form as attached to this Act as Exhibit A").

²⁶ Exhibit A to GWA Petition for Contract Review to Authorize GWA to Issue Water and Wastewater Revenue Bonds, GWA Docket 10-03, filed October 21, 2010.

The total estimated cost of capital improvement for fiscal years 2010-2014 is \$201M.²⁷ The Stipulated Order contains a comprehensive list of management, operations, financial administration, facilities construction and rehabilitation and training requirements to be implemented in accordance with strict schedules. Many of these objectives have been established in a Water and Wastewater Master Plan as approved by the CCU and the EPA. GWA must submit all of the 2003 Stipulated Order deliverables to EPA for approval.²⁸ The Preliminary Official Statement explains the types of capital improvement projects that are included in the bond financing:

Major water production, treatment and distribution projects in the CIP include construction of additional reservoirs to increase water storage capacity, completion of the meter replacement program, replacement of failing, leaking and aging pipelines, adjustment of pressure zones, and sitting and development of 16 new water production wells. Major wastewater collection and treatment projects in the CIP include construction of new wastewater treatment facilities that will incorporate provisions for redundancy to improve reliability, meet existing and future flow capacity and/or reliably achieve regulatory compliance. The CIP also includes electrical control and monitoring upgrades to the System and other miscellaneous improvements.²⁹

The projects which GWA seeks to finance are required under the Stipulated Order and are designed to improve the deteriorated condition of Guam's water and wastewater infrastructure. The Commission previously found that the rate increases approved for a four year rate plan, which increases were necessary to fund GWA's bond financed capital improvement projects, are "just" and "reasonable" pursuant to 12 GCA §§ 12015 and 12017.30 GWA intends to complete the remaining approximately 12% of the requirements of the Stipulated Order with funding from the 2005 Bond proceeds, the 2010 Bond proceeds and Authority operating revenues.31

The contemplated capital improvement projects appear to be in the public interest; they are necessary to improve the water and wastewater systems. At this time, the

²⁷ Preliminary Official Statement, filed in GWA Docket 10-03 on October 21, 2010.

²⁸ Preliminary Official Statement, Id. at p. 17.

²⁹ Preliminary Official Statement, Id. at p. 29.

³⁰ PUC FY09 Rate Decision, GWA Docket 09-03, p. 4.

³¹ Consulting Engineer's Report, Guam Waterworks Authority, GWA Docket 10-03, filed October 21, 2010.

individual projects which GWA seeks to fund through revenue bonds need not be specifically addressed and approved by the PUC. The draft Order submitted in this matter would require GWA to obtain prior approval of the Projects scheduled on Exhibit A to the Debt Order before bond proceeds can be expended or committed on them. There will be an ongoing review process by the PUC as to the prudence of these projects. At present it is sufficient for PUC to authorize the issuance of the bonds and to subsequently review those projects for which GWA contemplates that bond funds will be used.

(C) Rate Impact of the Bond Issuance.

The 2010 Bond Issuance undoubtedly will impact rates and has at least indirectly led to some of the projected increases in water and wastewater rates. Rates must provide for sufficient revenues to cover debt service on the bonds. The PUC FY09 Rate Decision explicitly recognized that the approval of bond issuance, and the anticipated bond issuance in 2013, necessitated an increase in rates: thus, a four year rate plan was approved through FY 2013. At that time the PUC found that rate increases to fund the capital improvement projects were "just" and "reasonable". However, the rate review process is also ongoing. In accordance with par. 7 of said Decision, the PUC will annually review, evaluate, and, if necessary, modify the initial estimates for future rate increases based upon updated information. At present, although will likely be a rate impact from the 2010 bond issuance, such impact appears to be justified.

Recommendation

PUC Counsel recommends that the PUC approve the issuance, terms and condition of the 2010 GWA Revenue Bonds. Counsel has submitted a proposed Order, and Order Approving Long-Term Debt, for the Commissioners' consideration (said Orders have been prepared in conjunction with the Orrick firm). The opinions stated by PUC Counsel herein are stated only for the benefit of the Commissioners of the PUC and are not for the benefit of, or intended to be relied upon by, any other person or entity.

Dated this 27th day of October, 2010.

Frederick J. Horecky

PUC Legal Counsel

Guam Waterworks Authority

Projects to be Included in Bond Financing

Exhibit A

Revenue Bond Projects	Estimated Cost
Water Production, Treatment & Distribution	\$32,464,000
Water Storage	15,497,000
Wastewater Collection and Treatment	11,420,000
Electrical Protection and Upgrades	3,951,000
SCADA	5,000,000
General Plant	13,070,000
Miscellaneous	2,700,000
Subtotal	\$84,102,000
Contingency*	3,039,577
Bond Issuance Costs*	4,158,875
Bond Reserve Fund*	7,872,400
Capitalized Interest*	19,652,148
Total	\$118,825,000

^{*} Preliminary - For Informational Purposes Only.

GWA Capital Improvements Plan Project Sheet FY 2011-2015

SUMMARY TABLES:

Summary Table Potable Water (X 1,000)

	y Table Potable Water (X 1,000)	2011	2012	2013	2014	2015
CIP#	Name	\$727				
PW 05-01	Ground Water Disinfection	\$439				
PW 05-02	Water Reservoir Condition Assessment	\$303			\$125	
PW 05-03	Santa Rita Springs Booster Pump Rehabilitation, Phase II	\$200				
PW 05-04	Ugum Water Treatment Plant Refurbishment	\$745	\$600	\$59		
PW 05-05	"A" Series Well Transmission Line	\$500			\$3,766	l'''
PW 05-06	Water Booster Pump Station	\$3,500				\$6,000
PW 05-07	Meter Replacement Program	40,455				
PW 05-08	Barrigada Tank Repair/Replacement	\$3,077			\$364	
PW 05-09	Leak Detection / Line Replacement	\$200		\$500	\$800	
PW 05-10	Potable Water System Planning	4200				
PW 05-11	Implement Ground Water Rule	 	\$1,200			
PW 05-12	Brigade II (Ugum Lift) BPS Upgrade	 	\$548			
PW 05-13	Deen Well Rehabilitation	 	\$3,773			
PW-05-14	New Deep Wells at Down Hard Well Sites	\$900	Ψο, 110			
PW 05-15	Rehabilitation of Asan Springs Ground Reservoir	\$100	\$1,500	 	f	
PW 05-16	Master Meters	\$1,470	\$2,200	 	1	
PW 09-01	Ugum Water Treatment Plant Intake Modifications	\$2,356	\$1,000		\$9,500	\$5,500
PW 09-02	Water Wells	\$1,848	\$5,384	\$3,500	\$5,698	\$5,52
PW 09-03	Water Distribution System Pipe Replacement		\$2,400	45,000	45,555	\$1,400
PW 09-04	Dressure Zone Realignment/Development 2005 impl-	\$1,150	\$2,425	\$300	\$875	\$500
PW 09-05	1 Northern System Water Distribution System 2003 Impr.	6000	\$300	\$600		1
PW 09-06	Central Water Distribution System 2005 Improvements	\$600	\$650	\$1,300	 	
PW 09-07	Southern Water Distribution System 2005 improvements	\$500	\$430	\$860		
PW 09-08	Mechanical/Electrical Equipment Replacement	\$500		4000		
PW 09-09	Water Reservoir Internal/External Corrosion Asmu.	\$500	\$800	\$800	\$400	\$40
PW 09-10	Water Reservoir Internal/External Corrosion Rend.	\$800	\$8,000			\$12,50
PW 09-11	Water System Reservoirs 2005 Improvements	\$3,697	\$1,500			
PW 11-01	1 Dietebution System Upgrades	<u> </u>				+
PW 11-02	Ugum Water Treatment Plant Reservoir Replacement		\$1,322		\$25,146	\$31,
Total		\$24,112	\$34,032	\$16,951	\$20,140	ψ01,1

Summary Table Wastewater (X 1.000)

	y Table Wastewater (A. 1,000)	2011	2012	2013	2014	2015
CIP#	Name Old Agat Wastewater Collection (Phase II)	\$1,200				
WW 05-01	Collection Line Upgrade/ Collection System Upgrades*					
WW 05-02	Collection Line Opgrade/ Collection System Opgrades					
WW 05-03	NDWTP Diffuser Installation*	\$1,500				
WW 05-04	Wastewater System Planning	\$235				
WW 05-05	Wastewater Vehicles			,	·	<u> </u>
WW 05-06	Wastewater Pump Station Upgrades*	\$250				
WW 05-07	NDWWTP - Chlorine Tanks	· · · · · · · · · · · · · · · · · · ·				
WW 05-08	. Umatac-Merizo STP Improvements*					
WW 09-01	LS Priority 1 Upgrades*	\$5,000				
WW 09-02	Moratorium (Phase III)	\$1,200				
WW 09-03	Old Agat Collection Continuation (Phase III)	 				
WW 09-04	Manhole Frame Seal Repair*	 	XXXX			
WW 09-05	Agat Manhole Rehabilitation					
WW 09-06	Wastewater Collection System Repl./Rehabilitation*		\$100			
WW 09-07	Tumon Bay Sewer Upgrades		\$2,575			
WW 09-08	Facilities Plan/Design for Baza Gardens STP Repl.		1			
WW 09-09	Facilities Plan/Design for the N. District STP Bio-solids*	\$600	\$1,624	·	-	
WW 09-10	Facilities Plan/Design for Agat-Santa Rita STP Repl.	4000	¥ 1,1+=1	<u> </u>	\$6,751	
WW 09-11	WWTP Priority 1 Upgrades	 	 		\$2,500	
WW 11-01	Priority 1 Sewer Upgrades - Agat District	\$650	 	-		
WW 11-02	Priority 1 Sewer Upgrades – Baza Garden District	\$000		\$3,567	\$6,267	\$12,078
WW 11-03	Raza Gardens STP Replacement			40,001	4 4	\$140
WW 11-04	L Escilitor PlaniDesign for the Umalac-Merizo STP Impr.		<u> </u>	 		
WW 11-05	Excitities Plan for Hagaina STP Impr. & Efficient WWVPS		 	<u> </u>		
WW 11-06	Lagratine STP improvements and Effluent VVVPS		 	 	· · · ·	
WW 11-07		<u> </u>	<u> </u>	044.000		
		<u> </u>		\$14,289	045 540	#42-24B
WW 11-08	Agatoania rata ori Tapasonia	\$10,635	\$4,299	\$17,856	\$15,518	\$12,218

* See Department of Defense Funding Table listed below

SUMMARY TABLE (continue):

Summary Table Flectrical Engineering (X 1,000)

Summa	y Table Electrical Engineering (X 17000)	2011	2012	2013	2014	2015
CIP#	Name	\$134				i i
EE 05-01	Well Electrical Protection	\$300				
EE 05-02	SCADA Pilot Project	XXXX	 			
EE 05-03	Currollance Camera	1	ļ ·	\$614		
EE 09-01	Wastewater Pumping Station Electrical Upgrade	\$500	\$500	\$2,000	\$500	
EE 09-02	Electrical Upgrade - Water Wells	4300		\$650		Ī
EE 09-03	Electrical Upgrade - Water Booster Pump Stations	 		\$350		
EE 09-04	Electrical Opgrade -Water Booster Pump Stations	 		\$250		
EE 09-05	Electrical Upgrade - Other Water Booster Pump Stations	\$250				
EE 09-06	SCADA Improvements – Phase 1	\$1,100				
EE 09-07	SCADA Improvements - Phase 2	\$1,500	\$1,000			<u> </u>
EE 09-08	SCADA Improvements – Phase 3	1	\$850	\$750	\$1,250	
EE 09-09	SCADA Improvements – Phase 4	\$3,784	\$2,350	\$4,614	\$1,750	

Common Table Miscellaneous (X 1,000)

CIP # Name \$400 \$400 \$400 MC 05-01 Laboratory Modernization \$743 \$500 \$500 \$493 MC 05-02 Land. Survey \$7,070 \$5,500 \$7,500 \$3,342 \$997 MC 05-02 Land. Survey \$7,070 \$5,500 \$7,500 \$3,342 \$997	Summary Table Miscellations (X 1,000)	2011	2012	2013	2014	2015
MC 05-01 Laboratory Modernization \$743 \$500 \$500 \$493 MC 05-02 Land Survey Land Survey \$7,070 \$5,500 \$7,500 \$3,342 \$997 \$7,070 \$6,077 \$6,0	CIP# Name.			\$400		
37,070 \$3,500 \$7,070 \$5,500 \$7,070			\$500			
MC 09-01 General Plant Improvements / vivaler bradients / vivale	A Alloton Distribution System	\$7,070	\$5,500			
Total	MC 09-01 General Flancinistorenia	\$8,213	\$6,400	\$8,400	\$3,835	\$997

Summary By Project Type (X 1,000)

Summai	y By Project Type (X 1,000)	2011	2012	2013	2014	2015
		\$24,112	\$34,032	\$16,951	\$25,146	\$31,823
PW	Potable Water	\$10,635	\$4,299	\$17,856	\$15,518	\$12,218
WW	Wastewater	\$3,784	\$2,350	\$4,514	\$1,750	
EE	Electrical Engineering	\$8,213	\$6,400	\$8,400	\$3,835	\$997
MC	Miscellaneous	\$46,744	\$47,081	\$47,821	\$46,249	\$45,038
Total		\$40,144	441,001	¥ 1.1,==1	<u> </u>	

FUNDING TABLES:

Funding Source Key: 2005 Bond 2011 Bond 2013 Bond

B2005

System Development Charge Internally Funded CIP

Grants

B2011 B2013 SDC IFCIP GRANT

Potable Water Funding Table (X 1,000)

Potable 1	Water Funding Table (A. I.	000)		2012		2013		2014		2015	
CIP#	Name	2011		2012		2013		2017			
PW 05-01	Ground Water Disinfection	\$727	B2005	• •							••
PW 05-02	Water Reservoir Condition Assessment	\$439	B2005								
PW 05-03	Santa Rita Springs Booster Pump Rehabilitation, Phase II	\$303	B2005					\$125	B 2013		
PW 05-04	Ugum Water Treatment Plant Refurbishment	\$200	B2005			٠					
PW 05-05	"A" Series Well Transmission Line	\$745	B 2005	\$600	B 2011	\$59	B 2013				
PW 05-06	Water Booster Pump Station	\$500	B 2011					\$3,766	B 2013		
PW 05-07	Meter Replacement Program	\$1,000 \$2,500	B 2005 B 2011			- · · · ·		. <u>.</u>		\$6,000	B 2013
PW 05-08	Barrigada Tank Repair/Replacement										
PW 05-09	Leak Detection / Line Replacement	\$1,032 \$2,045	B2005 GRANT	٠				\$364	B2013		
PW 05-10	Potable Water System Planning	\$200	B2011			\$500	B2013	\$800	B2013		· ·
PW 05-11	Implement Ground Water Rule										
PW 05-12	Brigade II (Ugum Lift) BPS Upgrade		.•	\$1,200	B2011		•				
PW 05-13	Deep Well Rehabilitation			\$548	B2011						<u> </u>
PW 05-14	New Deep Wells at Down Hard Well Sites			\$3,773	B2011				· .		
PW-05-15	Rehabilitation of Asan Springs Ground Reservoir	\$900	B2011								
PW 05-16	Master Meters	\$100	B2011	\$1,500	B2011						
PW 09-01 .	Ugum Water Treatment Plant Intake Modifications	\$1,470	B2011	\$2,200	B2011						
PW 09-02	Water Wells	\$2,356	GRANT	<u> </u>	GRANT			\$2,200 \$7,300	B2013 SDC	\$5,500	B2013
PW 09-03	Water Distribution System Pipe Replacement	-\$1,848	GRANT		B2011 GRANT	\$3,500	GRANT	\$2,000 \$3,698	B2013 GRANT	\$5,520	
PW 09-04	Pressure Zone Realignment /	\$1,150	B2011	\$2,400	B2011					\$1,400	B2013
PW 09-05	Northern System Water Distribution System 2005 Impr.	-		\$2,425	B2011	\$300	B2011	\$875	B2013	\$500	B2013
PW 09-06	Central Water Distribution System 2005 Improvements	\$600	B2011	\$300	B2011	\$300 \$300	B2011 B2013				
PW 09-07	Southern Water Distribution System 2005 Improvements	\$500	B2011	\$650	B2011	\$650 \$650	B2011 B2013				
PW 09-08	Mechanical/Electrical Equipment	\$500	B2011	\$430	B2011	\$430 \$430	B2011 B2013				
PW 09-09	Replacement Water Reservoir Internal/External	\$500	B2011							;	
PW 09-10	Corrosion Asmt Water Reservoir Internal/External	\$800	B2011	\$800	B2011	\$800	B2011	\$400	B2013	\$400	B2013
PW 09-11	Corrosion Rehb. Water System Reservoirs 2005	\$3,697	B2011	\$8,000	B2011	\$5,000	B2013	\$3,000	B2013		B2013
PW 11-01	Improvements Distribution System Upgrades	 		\$1,500	B2011	\$1,682	B2011	\$618	B2013		
PW 11-02	Ugum Water Treatment Plant	1 -		\$1,322	B2011	\$2,350	B2011	·			
I	Reservoir Replacement	+	\$24,112	+	\$34,032	+	\$16,951	1	\$25,146	\$	31,823

Westewater Funding Table (X 1,000)

	ater Funding Table (A 1,00	2011		2012		2013		2014		2015	
CIP#		\$1,200	GRANT				1				
WW 05-01	Old Agat Wastewater Collection	ψι,μου	,,								
	(Phase II)	\$1,500	B2011								
WW 05-04	Wastewater System Planning	V 1,555.									
	Wastewater Vehicles	\$235	B2011		1						
WW 05-05	AASIGMSIGI AGIRGO					<u> </u>			-		~
WW 05-07	NDWWTP - Chlorine Tanks	\$250	B2011	-	•						
	Moratorium	\$5,000	STL.				· ·				
WW 09-02	Working										
WW 09-03	Old Agat Collection Continuation	\$1,200	GRANT								
1111 00-00	(Phase III)	<u> </u>		\$100	B2011						
WW 09-07	Tumon Bay Sewer Upgrades	· ·		ຸສຸເໜ	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
	Facilities Plan/Design for Baza	 		\$1,250	B2011	· .					•
WW 09-08	Gardens STP Repl.	1		\$1,325							
WW 09-10	Facilities Plan/Design for Agat-	\$600	B2011	\$300	B2011					1	
AAAA 08-10	Santa Rita STP Repl.	<u>'</u>		\$1,324	GRANT	<u> </u>		\$2,451	GRANT		
WW 09-11	WWTP Priority 1 Upgrades		•	Ì				\$4,300	SDC		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	·	 		 				\$2,500	GRANT	1	
WW 11-01	Priority 1 Sewer Upgrades - Agat	1.									
	District Rays	650	B2011								
WW 11-02	Priority 1 Sewer Upgrades – Baza Garden District	.] ***		i			50040	\$3,267	B2013	\$12,078	B2013
WW 11-03	Baza Gardens STP Replacement	Ţ <u>;</u> -		1		\$3,567	B2013	\$3,000	SDC	412,070	
4444 i 1-02				 		 		40,000		\$140	B2013
WW 11-04	Facilities Plan/Design for the Umatac-Merizo STP Impr.					22.000	B2011			 -	
WW 11-08		1.				\$2,968 \$6,172	B2011 B2013	1			
7444 1 1-00	Manager Manager			1		\$5,149		1		<u> </u>	<u> </u>
		 	\$10,635	 	\$4,299		\$17,856		\$15,518		\$12,218

Flectrical Engineering Funding Table (X 1,000)

	il Engineering Funding Tai	2011		2012		2013		2014		2015
CIP#	Name		B2005						·	
E 05-01	Well Electrical Protection	\$108 \$26	B2011							
E 05-02	SCADA Pilot Project	\$300	B2011							
EE 05-03	Surveillance Camera	T-		٠.	1		• .			
EE 09-01	Wastewater Pumping Station					\$614	B2013	:		
== 0 5- 01	Electrical Linguade	\$500	B2011	\$500	B2011	\$2,000	B2011	\$500	B2013	
EE 09-02	Electrical Upgrade - Water Wells	φυσο .				anor.	B2011			
EE 09-03	Electrical Upgrade - Water Booster	T.				\$325 \$325	B2013			
	Pump Stations Electrical Upgrade -Water Booster	 . 				\$350	B2011			
EE 09-04	Pump Stations	<u> </u>		ļ		\$250	B2011			
EE 09-05	Electrical Upgrade - Other Water Booster Pump Stations	- [ļ		
EE 09-06	SCADA Improvements - Phase 1	\$250	B2011				•	i		
EE 09-07	SCADA Improvements - Phase 2	\$1,100	B2011				•			
	SCADA improvements – Phase 3	\$1,500	B2011	\$1,000	B2011		· · · ·		,	
EE 09-08				6950	B2011	\$750	B2013	\$1,250	B2013	<u> </u>
EE 09-09	SCADA Improvements - Phase 4		•	\$850	52011	\$.00			44 TEO	
		+	\$3,784		\$2,350		\$4,614	<u></u>	\$1,750	<u> </u>

Miscellaneous Funding Table (X 1,000)

CIP#	Name	2011		2012		2013		2014		2015	
MC 05-01	Laboratory Modernization	\$400 B20)11	\$400	B2011	\$400	B2011			,	
MC 05-02	Land Survey	\$243 \$500	B2005 B2011	\$500	B2011	\$500	B2011	\$493	B2013		
MC 09-01	General Plant Improvements / Water Distribution System	\$6,570 \$500	B2011 INCIP	\$3,500 \$2,000	B2011 INCIP	\$3,000 \$2,000 \$2,500	B2011 B2013 INCIP	\$2,342 \$1,000	B2013 INCIP	\$997	B2013
Total	· · · · · · · · · · · · · · · · · · ·		\$8,213		\$6,400		\$8,400		\$3,835		\$997

Funding Source Summary (X 1,000)

B2005	2005 Bond	2011	2012	2013	2014	2015
B2011	2011 Bond	\$4,797			•	
B2013	2013 Bond	\$27,798	\$36,432	\$19,872	\$22,000	\$45,038
SDC	System Development Charge			\$16,800		
	Short Term Laon	\$5,000			\$14,600	
STL IFCIP	Internally Funded CIP	\$8,649	\$8,649	\$8,649	\$8,649	,
	Grants	\$500	\$2,000	\$2,500	\$1,000	
GRANT	Glants	\$46,744.00	\$47,081.00	\$47,821.00	\$46,249.00	\$45,038

Department of Defense (DoD) Funding

DoD Funded GWA Wastewater CIP's

CIP#	Name
WW 05-02	Collection Line Upgrade/ Collection System Upgrades
WW 05-03	NDWTP Diffuser Installation
WW 05-06	Wastewater Pump Station Upgrades
WW 09-01	LS Priority 1 Upgrades
WW 09-02	Moratorium
WW 09-04	Manhole Frame Seal Repair
WW 09-06	Wastewater Collection System Repl./Rehabilitation
WW 09-09	Facilities Plan/Design for the N. District STP Bio-solids
WW 11-05	Facilities Plan for Hagatna STP Impr. & Effluent WWPS
WW 11-06	Hagatna STP Improvements and Effluent WWPS
WW 11-07	Northern District STP Expansion – Biosolids Electrical

DoD Wastewater Project Description

Project	Project Details	GWA CIP included		
Northern District WWTP	Interim Capacity 8-9 MGD			
· · ·	Phase 1: Primary Capacity 12 MGD	WW 05-03, WW 11-07		
	Phase 2: Secondary Capacity 12 MGD			
	Phase 3: Final Capacity 16 MGD			
Hagatna WWTP	Phase 1: Primary Capacity 12 MGD	WW 11-05, WW 11-06		
	Phase 2: Secondary Capacity 12 MGD			
Collection System Improvements	Central and Northern Systems	WW 05-02, WW 05-06, WW 05-06 WW 09-01, WW 09-02, WW 09-04, WW 09-06		

CIP	Project Details	2011	2011	2012	2013	2014
DOD 01	NDWWTP Interim Capacity 8-9MGD			<u> </u>	-	
DOD 02	NDWWTP Phase 1: Primary Capacity 12 MGD	<u> </u>	\$60,000			
DoD 03	NDWWTP Phase 2: Secondary Capacity 12MGD			\$100,000		
DoD 04	NDWWTP Phase 3: Final Capacity 16 MGD			\$29,000		
DoD 05	HWWTP Phase 1: Primary Capacity 12 MGD	1	\$15,000			
DoD 06	HWWTP Phase 2: Secondary Capacity 12MGD	 		\$135,000		<u> </u>
DoD07	Central and Northern Systems	\$40,000	\$42,000			
DoD 08	Water (New wells, Storage, Transmission, and Transmission loop in Northern Guam)	\$80,000	\$79.000			
Total	\$580,000	\$120,000	\$196,000	\$264,000		