Gmail

BENJAMIN CRUZ <speaker@senatorbjcruz.com>

MC Fwd: CCU MEETING 5/22 - BOARD MEETING MATERIALS

1 message

BENJAMIN CRUZ <speaker@senatorbjcruz.com>
To: 34th Guam Legislature Clerks <clerks@guamlegislature.org>
Cc: Rennae Meno <rennae@guamlegislature.org>

Tue, May 22, 2018 at 3:51 PM

05/22/18	05/22/18	Consolidated Commission on Utilities	CCU Meeting May 22, 2018. Materials*	34-18-1912

---------- Forwarded message ----------
From: **Bernadette Lou Sablan** <l.sablan@gpagwa.com>
Date: Tue, May 22, 2018 at 3:44 PM
Subject: CCU MEETING 5/22 - BOARD MEETING MATERIALS
To: "Andy Niven (ndynvn@yahoo.com)" <ndynvn@yahoo.com>, Angelica Perez <aperez@amibrokers.com>, Ann Borja - GWA <annborja@guamwaterworks.org>, "Annmarie Muna (amuna@ambrokers.com)" <amuna@ambrokers.com>, Artemio S Perez <aperez@gpagwa.com>, BENJAMIN CRUZ <speaker@senatorbjcruz.com>, "Cameron Mulka (cimiculka@guampdn.com)" <cimiculka@guampdn.com>, "Charlene Calvo (charlene.calvo@ipehq.com)" <charlene.calvo@ipehq.com>, Chilang F Unpingco <cfejeran@gpagwa.com>, "Fred Horecky (horeckylaw@teleguam.net)" <horeckylaw@teleguam.net>, "Gaynor Delano (gdumat-ol@guam.gannett.com)" <gdumat-ol@guam.gannett.com>, Gilda Mafnas <gildam@guamwaterworks.org>, Governor's Office <joy.unpingco@guam.gov>, "Greg P. Cruz" <gpcruz@guamwaterworks.org>, Heidi Ballendorf <heidi@guamwaterworks.org>, "Jams Y Kim (pacguam@gmail.com)" <pacguam@gmail.com>, "Jeff Johnson (jeffcharjohnson@hotmail.com)" <jeffcharjohnson@hotmail.com>, Jennifer G Sablan <jsablan@gpagwa.com>, "Jessica Peterson (webmaster@theguamguide.com)" <webmaster@theguamguide.com>, "Jessy Gogue (ocp.mayor@gmail.com)" <ocp.mayor@gmail.com>, "Joe John Mantanona (joejohnmantanona@gmail.com)" <joejohnmantanona@gmail.com>, "John O'Connor (john@postguam.com)" <john@postguam.com>, "John Reigel (jriegel@brwncald.com)" <jriegel@brwncald.com>, Joyce N Sayama <jsayama@gpagwa.com>, Karla Tydingco <ktydingco@guamwaterworks.org>, "Kevin Kerrigan (kevin@postguam.com)" <kevin@postguam.com>, Kim Garrido <kim.garrido@mec-guam.com>, "Louella Losinio (louella@postguam.com)" <louella@postguam.com>, Manny Apuron <mapuron@guamwaterworks.org>, "Maripaz N. Perez" <mnperez@gpagwa.com>, "Michael White (whitema@cdmsmith.com)" <whitema@cdmsmith.com>, "Nestor Licanto (nestor@kuam.com)" <nestor@kuam.com>, "Patricia L. Diego" <pldiego@gpagwa.com>, "PDN Newsroom (news@guampdn.com)" <news@guampdn.com>, "Peter Montinola (peter@isuguam.com)" <peter@isuguam.com>, Selma HG Blas <sblas@gpagwa.com>, "Telena Nelson (senatortcnelson@gmail.com)" <senatortcnelson@gmail.com>, "Therese Terlaje (senatorterlajeguam@gmail.com)" <senatorterlajeguam@gmail.com>

Dear CCU Stakeholders:

Attached is pdf file / materials for tonight's CCU meeting.

GLA 34-18-1912

Speaker Benjamin J.F. Cruz

MAY 22 2018
Time: 351 [ ] AM [4] PM File No.
Received By:

Respectfully,

B. Lou Sablan

Board Secretary

Consolidated Commission on Utilities

Admin Asst., Legal Counsel, GPA

GLORIA B. NELSON PUBLIC SERVICE BLDG.

3RD Floor, Executive Division

688 Route 15, Mangilao, GU 96913

P.O. Box 2977, Hagatna, GU 96932

Tel: (671) 648-3002

Fax: (671) 648-3290

Email: l.sablan@gpagwa.com

Website: http://guamccu.org/

http://guampowerauthority.com/home.html

http://guamwaterworks.org/

2018 MAY 22 PM 4:56

OFFICE OF SPEAKER BENJAMIN J.F. CRUZ

Committee on Appropriations and Adjudication

I Mina'trentai Kuattro na Liheslaturan Guahan

Guam Congress Building | 163 Chalan Santo Papa | Hagatna, GU 96910

T: **(671) 477-2520**/1 | F: **(671) 477-2522** | **www.senatorbjcruz.com**

CCU 5.22.18.pdf
13876K

1912

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671) 648-3002 | guamccu.org

Regular Board Meeting
CCU Conference Room, Gloria B. Nelson Public Service Building
5:30 p.m., May 22, 2018

AGENDA

1. CALL TO ORDER

2. APPROVAL OF MINUTES

3. COMMUNICATIONS
   - 3.1 Public Comments (2 min. per person)

4. NEW BUSINESS
   - 4.1 GPA
   - 4.1.1 GM Report Update
   - 4.1.2 Financials
   - 4.1.3 Resolution 2018-10 Relative to Unarmed Security Guard Services

   - 4.2 GWA
   - 4.2.1 GM Report Update
   - 4.2.2 Financials
   - 4.2.3 Resolution No. 28-FY2018 Relative to Approval of the Construction Contract for the SCADA System for Water and Wastewater Facilities Phase A-1
   - 4.2.4 Resolution No. 29-FY2018 Relative to Approval of Change Order to the Yigo and Astumbo Reservoir Construction Management Contract
   - 4.2.5 Resolution No. 30-FY2018 Relative to Approval of the Construction Management Contract for the Route 1 Asan-Adelup-Hagatna Sewer Line Rehabilitation Project
   - 4.2.6 Resolution No. 31-FY2018 Relative to Approval of the 2013 and 2016 Bond Reallocation
   - 4.2.7 Resolution No. 32-FY2018 Relative to Approval of Contract for Design and Construction of the GWA Interceptor Sewer Refurbishment Project for Northern District
   - 4.2.8 Resolution No. 33-FY2018 Relative to Approval of Funding Match Commitment for Bureau of Reclamation Grant as it Relates to GWA District Metering Project Grant Application

5. OLD BUSINESS

6. ANNOUNCEMENTS
   - 6.1 Next CCU Meetings: CCU Meeting – June 5, 2018; Work Sessions: None

7. EXECUTIVE SESSION
   - 7.1 Personnel Matter
   - 7.2 Litigation Matter

8. ADJOURNMENT

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671) 648-3002 | guamccu.org

Regular Board Meeting
CCU Conference Room, Gloria B. Nelson Public Service Building
5:30 p.m., April 20, 2018

MINUTES

1. CALL TO ORDER

The Chairman called the CCU regular meeting of April 20, 2018 to order at 5:30 p.m. He said all five (5) Commissioners were present, Others present include:

Commissioners:

Joseph T. Duenas	CCU Chairman
Francis Santos	CCU Vice Chairman
George Bamba	CCU Secretary
Judith P. Guthertz	CCU Treasurer
Simon A. Sanchez	CCU Member

Executive Mgmt.:

John Benavente	GM / GPA
Miguel Bordallo	GM / GWA
Melinda Mafnas	GM (A) / GPA
John Cruz	AGMET / GPA
Tricee Limtiaco	AGMA / GPA
Cora Montellano	CFO (A) / GPA
Greg Cruz	CFO / GWA
Kelly Clark	Staff Attorney / GWA

Management & Staff:

Tom Cruz	Chief Engineer / GWA
Lisa San Agustin	Utility Service Admin / GWA
Zina Charfaurous	Personnel Admin / GWA
Vincent Pangelinan	GWA
Ann Borja	Mgmt. Analyst / GWA Ex. Office
Lou Sablan	Board Secretary / CCU

Guest:

Bill Gilman	Brown & Caldwell
Angela Perez	AM Insurance
Andy Niven	PUC Commissioner

2. APPROVAL OF MINUTES

The Minutes of March 27, 2018 was presented for approval.

Comm. Bamba motioned to approve the Minutes subject to verification and written correction, second by Comm. Guthertz. There was no further discussion or objection and the motion passed.

3. COMMUNICATIONS

3.1 Public Comments

4. NEW BUSINESS

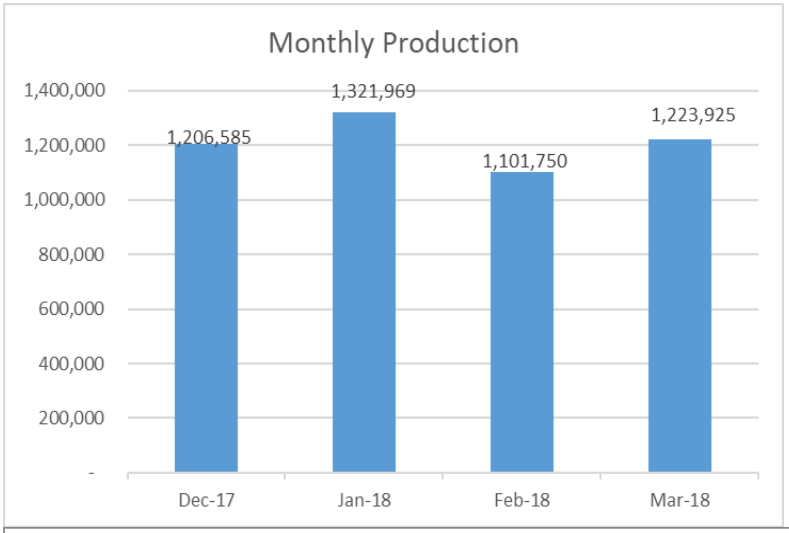
4.1 GWA

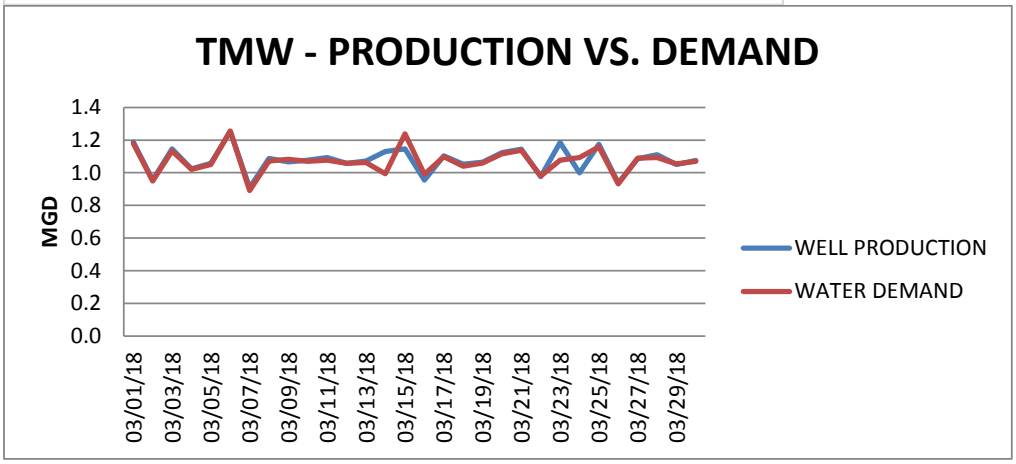
4.1.1 GM Report Update

Operations Update

Production

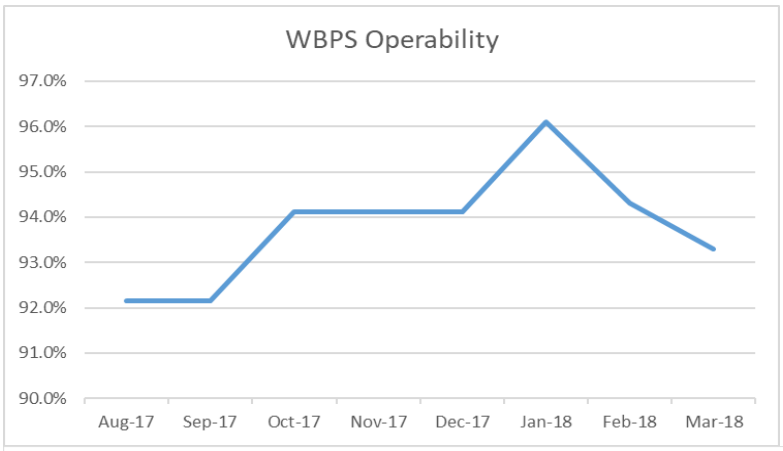
Monthly Production Summary - March 2018					
Deep Wells				36.2	MGD
	Active wells =	97	of 120		
	Avg days in operation =	31.00	days		
	Total Production =	1,121,415	Kgals		
Springs				0.00	MGD
	Avg days in operation =	0	days	*placed on standby	
	Total Production =	0	Kgals		
Ugum Surface Water Plant				2.2	MGD
	Avg days in operation =	31	days		
	Total Production =	69,014	Kgals		
Tumon Maui Well				1.08	MGD
	Avg days in operation =	31	days		
	Total Production =	33,496	Kgals		
		1,223,925	Kgals	39.5	MGD

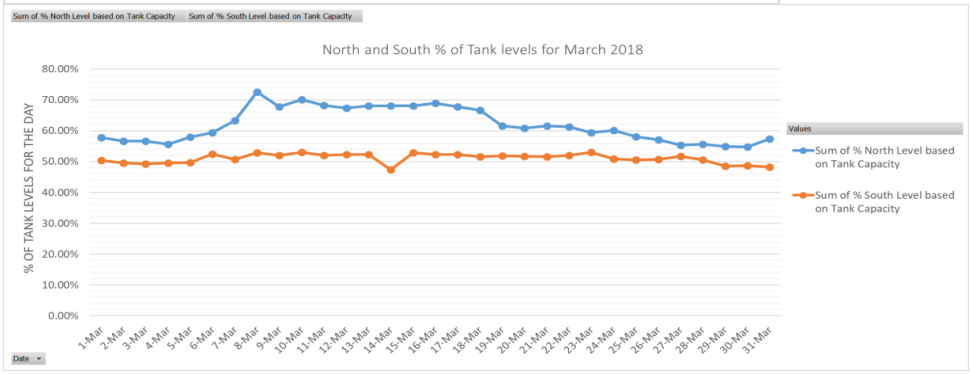




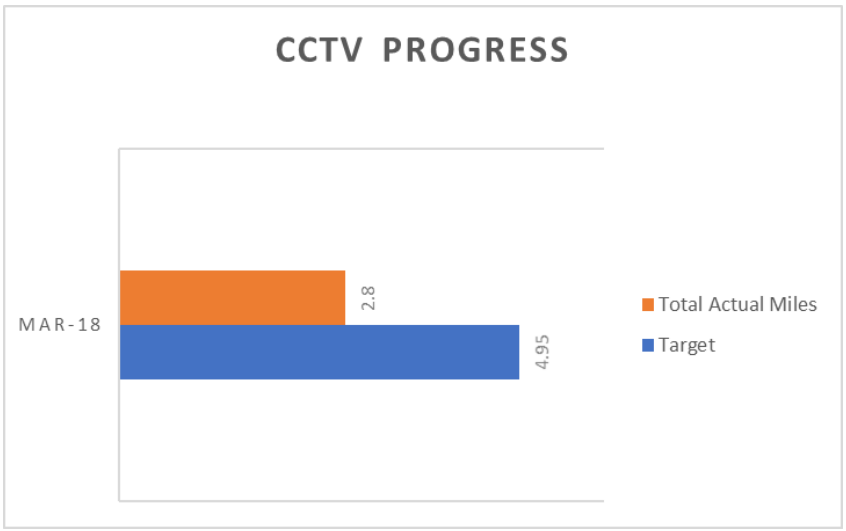
Distribution

Monthly Distribution Summary - March 2018					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	11	21	19	90.5%
	Central	7	15	13	86.7%
	Southern	7	15	14	93.3%
		25	51	46	90.2%

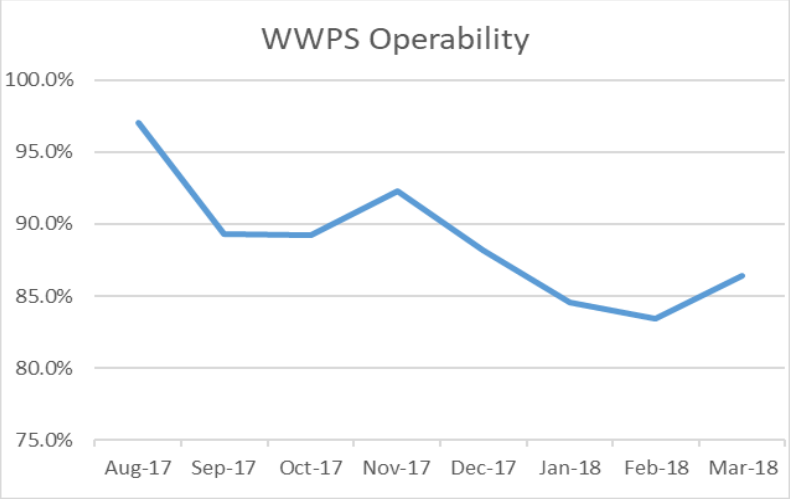




Wastewater Collections

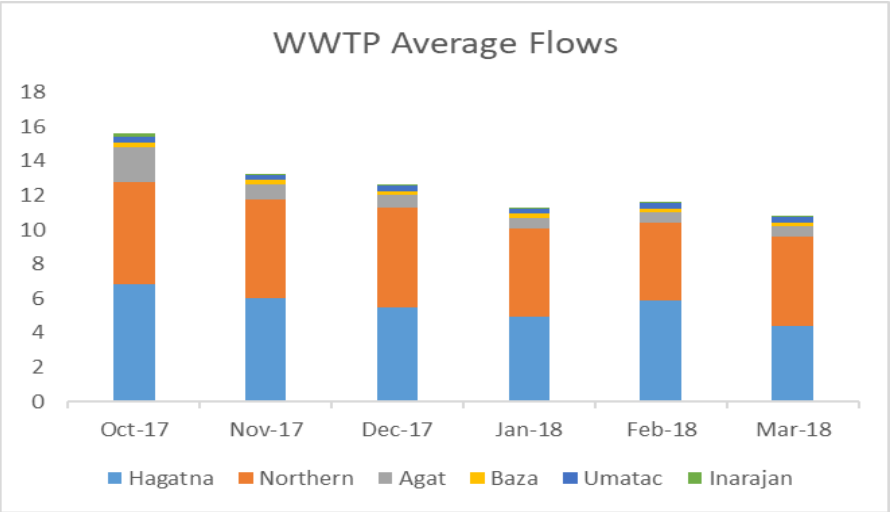


Monthly Collections Summary - March 2018					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	48	92.3%
	Central	29	63	55	87.3%
	Southern	27	54	43	79.6%
		78	169	146	86.4%

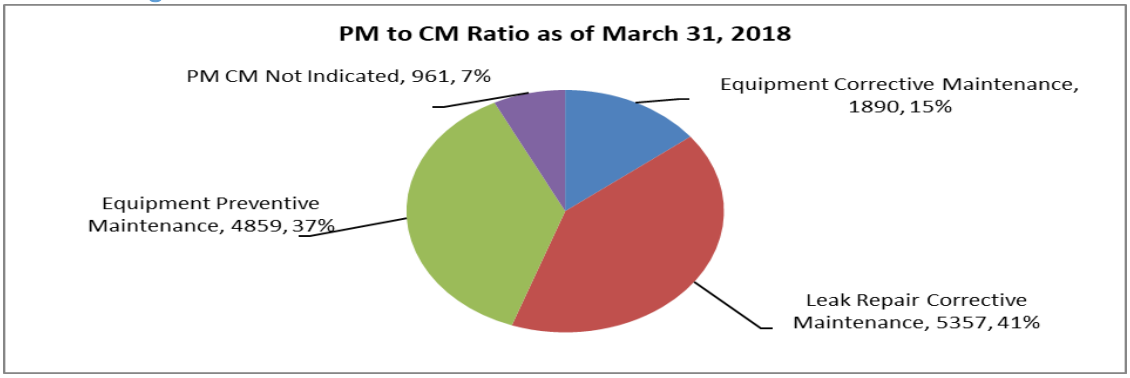


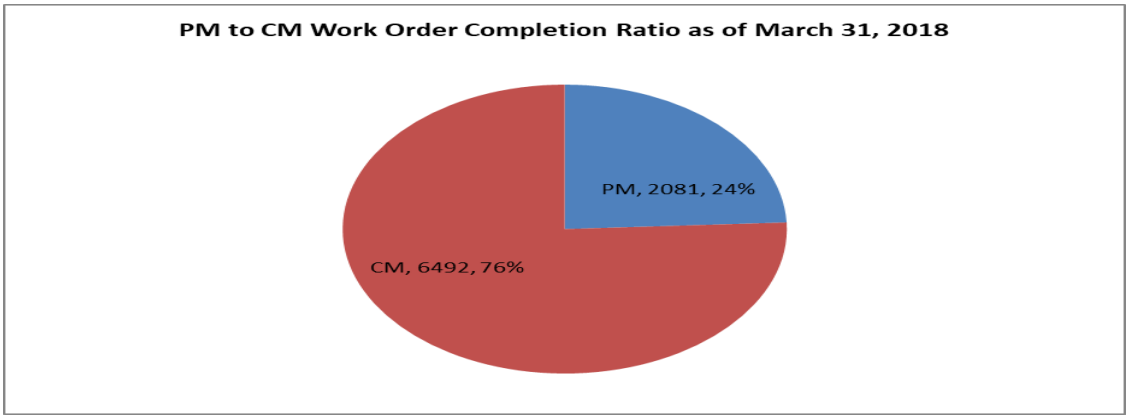
Wastewater Treatment

Monthly Wastewater Treatment Summary - March 2018				
WW Treatment Plants - Flows				
	Facility	**Avg. Daily Flows**	**Sludge (lbs)**	**Sludge Disp. ($)**
	Hagatna	4.40	540,600	$ 48,654
	Northern	5.2	953,280	$ 85,795
	Agat	0.58		
	Baza	0.25		
	Umatac	0.30		
	Inarajan	0.05		
		10.78	1,493,880	$ 134,449



Asset Management





Operational Issues

Production & Distribution

- **Leak repair**

  - Crews maintaining performance - less than 60 pending repairs, less than 20 backhoe required repairs
  - pending IFB for leak repair services
  - pending for advanced remote leak detection services
- Ugum WTP – scope of SCADA improvements finalized – pending pricing adjustments and change order.
- 2018 Pump/Motor order – released on February 16, 2018; delivery pending.
- GWA Crane Repair –repairs have been made and unit is finally working; last error code found to be software issue that the factory rep is still working to resolve.

Wastewater Collection & Treatment

- O&M Manager retired suddenly – Management is evaluating options and temporary detail appointment has been made
- CCTV:
  - Crews completed approximately 2.8 miles in March
- Pump station facility maintenance efforts still underway
- FOG Program
  - Program Manual revisions completed
  - 2nd Residential Collection Program was very successful - 840 gallons collected
- All issues related to USEPA inspection at Hagatna WWTP have been addressed with two items pending.
  - Effluent pump was down – repair on one pump completed, critical spare motor in procurement
  - Digester mixer was down – pending gearbox repair
  - Floc chamber mixers down – repairs have been completed, four in operation, one pending electrical connection
  - Centrifuge was down – both units now operational
  - Safety issue – motor guards have been reinstalled.

Meters

COMPLETED FIELD ACTIVITY JAN 2017 THRU MAR 2018 (POSTED IN CIS)	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	TOTAL:	MARCH 2018 COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Test Meter	30	9	9	371	745	87	393	743	1000	1007	434	378	750	969	1213	8138	484
GWA - Meter Exchange	393	179	220	276	482	353	501	807	1526	1039	452	259	239	1086	2120	9932	0
GWA - Verify Zero Report	30	124	114	94	96	402	261	199	550	89	82	169	356	106	117	2789	18
GWA - Verify Low Usage	0	0	0	2	37	36	196	488	657	202	127	612	858	1122	1055	5392	268
TOTAL:	453	312	343	743	1360	878	1351	2237	3733	2337	1095	1418	2203	3283	4505	26251	770

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	345	350	144	252	305	210	302	397	1013	1130	927	704	721	1041	1347	9188	
# OF BACKBILLINGS APPLIED AS PER FINANCE REPORTS:	0	0	0	20	122	84	29	111	219	80	77	4	136	23	323	1228	$ 849,025.16

# OF FIELD CREW PERFORMING CHANGE OUTS:	19	10	13	9	21	21	14	24	35	28	28*	28*	5	13	13	
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CIS:	7	4	5	6	9	9	10	13	15	15	13	13	8	11	9	
# OF SUPPLY STAFF TO ISSUE MATERIALS AND PROGRAM NEW METERS:	2	2	2	2	2	2	2	2	2	2	2	2	2	4	0	
# OF TEST FACILITY PERSONNEL TESTING METERS:	2	2	2	3	3	3	3	3	3	3	3	3	3	2	2	
# OF ACCOUNTANTS CALCULATING BACK BILLS:	0	0	0	2	3	2	2	3	3	2	2	2	2	2	2	
TOTAL:	30	18	22	22	38	37	31	45	58	50	48	48	20	32	26	

*Project overtime on hold Nov 18, 2017 thru Dec 16, 2017. During this period, 4 personnel performed work on this project during the regular work day with a majority of the work completed during Nov and Dec month occuring before and after the OT moratorium.

ACTIVE BADGER MODEL LP COUNT AS OF MARCH 2018:		
LP PURCHASE DATE	**COUNT**	
2/10/2012	1	**WARRANTY EXPIRED**
3/27/2012	1	
4/10/2012	1	
4/14/2012	7	
4/18/2012	1	
5/30/2012	1	
6/7/2012	1	
7/27/2012	3142	
7/31/2012	1	
8/10/2012	1	
8/29/2012	1	
8/31/2012	4175	
12/10/2012	1	
12/24/2012	1639	
1/14/2013	2160	
2/25/2013	759	
3/1/2013	624	
5/23/2013	1453	**ACTIVE WARRANTY**
8/2/2013	1	
8/29/2013	2600	
9/5/2013	1	
11/12/2013	1	
1/17/2014	1	
2/27/2014	654	
4/10/2014	2453	
6/2/2014	71	
8/28/2014	1412	
TOTAL :	**21163**	
	12516	WARRANTY EXPIRED
	8647	ACTIVE WARRANTY

Marbo (Andy-South) Wells – Status

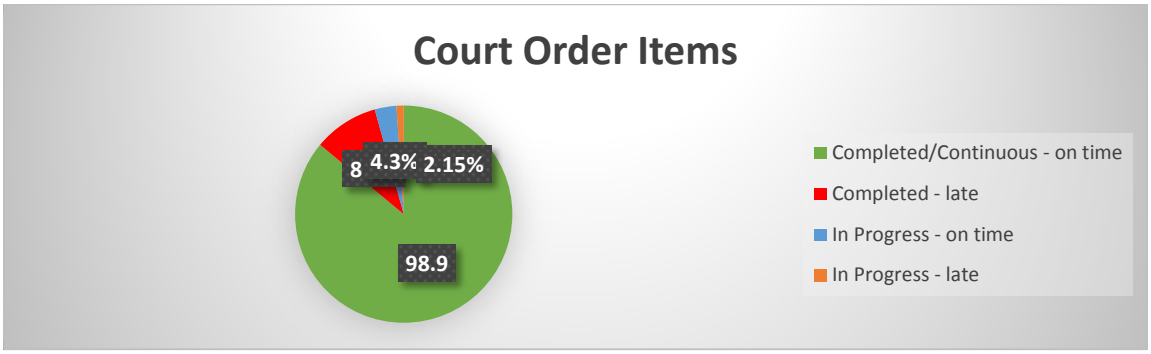
- Involuntary reversion appears imminent; GWA Counsel transmitted draft easement documents to GSA for consideration with DoD
- GM and General Counsel attempted to meet with GSA Counsel in SFO this month, but meeting had to be rescheduled
- No information on timing, but Management remains hopeful that parceling of lots as 'easements' will be accomplished

One Guam Update

- Tumon Maui Well:
  - For the vent shaft leaks, GWA's Consultant B&C needs a work authorization so they will draft a proposal. Initial water flow from the vent shaft was caused by a failure of the level indicator which allowed the tank to overflow. A new level indicator will be employed to avoid the problem in the future.
- Santa Rosa Tank:
  - GWA and DOD finally decided on the location of the infrastructure required for the intertie.
  - GWA's Contractor will finalize the property maps for the intertie. It was agreed by all parties that the valve boxes will be located on GWA's property.
  - Once the maps are completed, the letter to General Cox will be finalized for the temporary easement.
- Although the construction of GWA's tank at Santa Rosa is underway, the intertie will be done as soon as the approval of the Navy, resolution of the temporary easement and the SOP and MOU for the intertie are completed.
- Distribution Systems:
  - GWA continues to work with DOD to resolve wastewater line issues in the Leon Guerrero area.

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	**93**	**80**	**1**	**9**	**3**	**98.9%**



Status Information

- 1 item delayed
  - Meters
- Final Date to complete all Court Order items is December 31, 2020.
- Overflow or Bypass events reported to USEPA:
  - Southern SSES Phase II Location – Santa Rita;
  - Redondo Luchan, Dededo;
  - South Mariposa Court, Dededo.

CIP Summary

CIP Summary - Project Encumbrance

	2010 Bond		2013 Bond		2016 Bond		
	Funded	Complete	Funded	Complete	Funded	Complete	Total CIP Projects
Potable Water	28	17	21	7	20	0	35
Wastewater	16	13	7	3	8	1	22
Electrical Engineering	5	5	6	1	5	0	10
Miscellaneous Eng'g Support	2	0	3	1	4	1	4
Totals	51	35	37	12	37	2	71
% of Total CIP by Fund Source	72%		52%		52%		

CIP Summary - Project Amounts

	2010 Bond		2013 Bond		2016 Bond		
	Funded	%	Funded	%	Funded	%	Total CIP Projects
Potable Water	$ 41,903,305	48%	$ 58,317,117	42%	$ 64,647,830	46%	$ 164,868,252
Wastewater	$ 36,009,577	41%	$ 73,837,883	53%	$ 60,227,170	43%	$ 170,074,630
Electrical Engineering	$ 1,748,118	2%	$ 3,395,000	2%	$ 8,750,000	6%	$ 13,893,118
Miscellaneous Eng'g	$	9%	$	3%	$	5%	$

Support	7,741,000		3,775,000		6,394,460		17,910,460
Totals	$ 87,402,000	100%	$ 139,325,000	100%	$ 140,019,460	100%	$ 366,746,460
Funds Encumbered to date	$ 83,354,000	95%	$ 131,064,000	94%	$ 79,548,000	57%	
% of Total CIP Funding	23.8%		38.0%		38.2%		

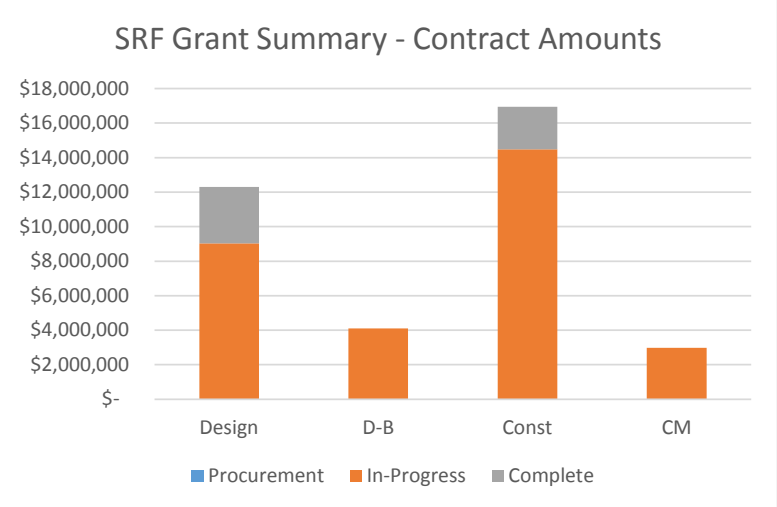
SRF Grant Summary

SRF Grant Summary - Projects

	Procurement	In-Progress	Complete	Totals	%
Design	0	8	4	12	43%
D-B	0	3	0	3	11%
Const	0	5	1	6	21%
CM	0	7	0	7	25%
Totals	0	23	5	28	
%	0%	82%	18%		

SRF Grant Summary - Contract Amounts

	Procurement	In-Progress	Complete	Totals	%
Design	$ -	$ 9,025,796	$ 3,279,629	$ 12,305,425	34%
D-B	$ -	$ 4,096,694		$ 4,096,694	11%
Const	$ -	$ 14,480,091	$ 2,470,658	$ 16,950,749	47%
CM	$ -	$ 2,977,793	$ -	$ 2,977,793	8%
Totals	$ -	$ 30,580,374	$ 5,750,287	$ 36,330,661	
%	0%	84%	16%		



OEA Grant Summary

- **NDWWTP Upgrades**
  - **30% design submittal is in internal QC review; GWA expects receipt in Mid-May.**
  - **USEPA reported recently that two potential but likely insignificant cultural resources may have been found, waiting on more detail**
- **Outfall Diffuser:**

  - Post-bid Input from bidders received
  - Bid package being revised based on comments; re-design of anchors being evaluated;
  - GWA expects review set in a few weeks.
- Sewer Line Interceptor Design-Build
  - Multi-Step IFB has been issued.
  - Technical Proposal received and Qualified Bidder List established – 3 bidders qualified.
  - Price Proposal extended to 4/26/18.
- NGLA Observation wells – Design work on-going
  - Workshop for 30% design scheduled for this month.

Land Acquisition Summary

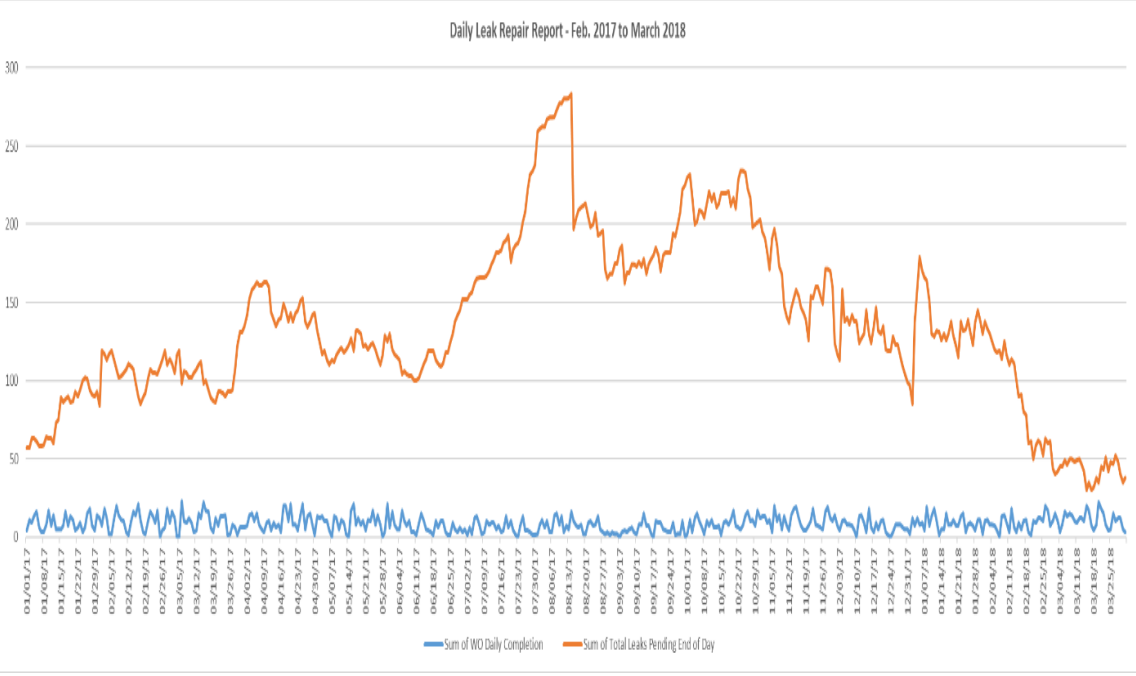
GWA Facility	Location	Gov't./Private/Other	Land Acquisition Status
Tanks	Ugum	Private	TGE to draft Letter of Decision for private property owners 11/09/17. Appraisal Services requested by TGE 04/02/18.
	Astumbo	Gov't./CLTC	GWA and DoLM working together on Land Registration process. Pending Notification of surrounding lot owner information from DoLM.
	Piti	Private	Letters of Intent letters received from private property owner to authorize GWA to begin preliminary geotechnical investigation and archaeological investigation 2/27/18.
Expansion of the Northern District Wastewater Treatment Plant (NDWWTP)	Dededo	Gov't./GALC	Funding Approval Request Sent to Finance 11/30/17; DoLM to draft Grant Deed 02/28/18. Title & Escrow Company have acknowledged underwriter approval of land acquisition 03/06/18. PUC approval 03/29/18.
Deep Well	A-12	Private	Property ownership vested in GWA 10/16/17.
	AG-12	Dept. of Agriculture/Manhita Farms	DCA is still verifying suspected buildings/concrete houses encroachments along the

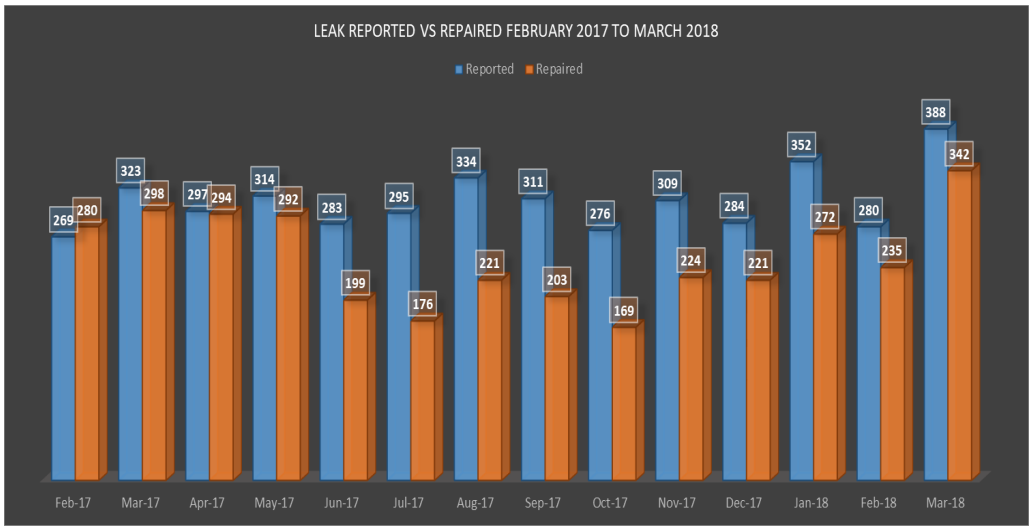
			northerly and southerly boundaries 04/02/18.
	Y-8	Gov't./CLTC	GWA Land Agent to draft Grant Deed for property ownership under PL 22-18 - 04/09/18.
Booster Pump Station	Agfayan	Private	2nd follow up Letter of Intent delivered to private property owner on 04/09/18.
Sewer Pump Stations	Property adjacent to Southern Link	Private	GWA started acquisition process on 12/23/2016. Property ownership vested in GWA 08/11/2017.
Asan Springs	Asan	Gov't./Private	GWA working to determine ownership 04/10/18.

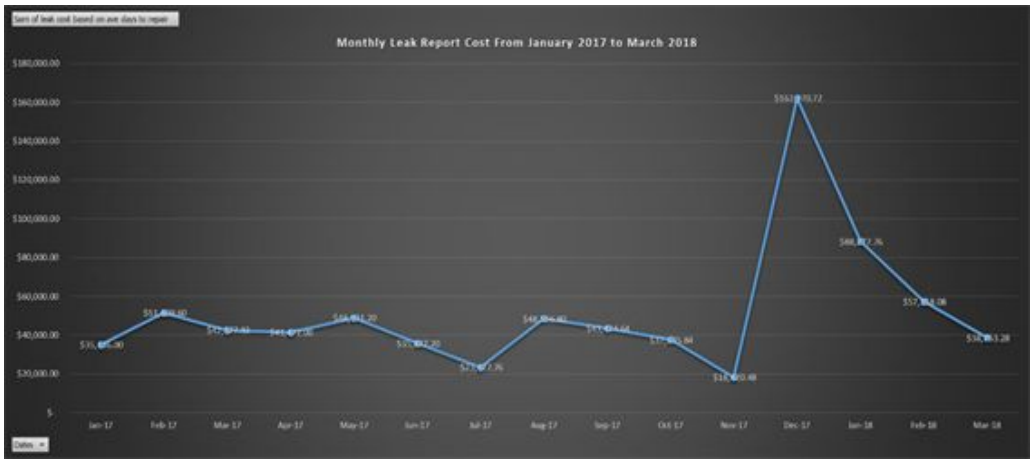
NRW – Update

- Water Audit update on-going
  - Production rates are being reviewed for accuracy and refined
  - Unmetered, Authorized uses are being quantified
  - Meter and billing inaccuracies are being reviewed and refined

Leak Repair Summary







Assumptions

1. Leak rate = 4 gpm
2. Cost per kgal = $4.00

ACTION ITEM: Relative to GWA's Master Plan the Commission recommended that management do public outreach to GHRA, Guam Chamber of Commerce, Realtors, Contractors and the Legislature – similar to GPA's outreach for the new generation plant. They said it is important the management give the community a sense of the broader picture.

4.1.2 Financials

Financials not discussed.

4.1.3 Resolution 26-FY2018 Relative to Change Order and Increase in Project Funding for ConstrMgmtSvcs for Rehab of GWA Wells D-03, D-17, D-18, D-22, M-09, W11-008-BDN

The objective of Change Order No. 4, is to extend the duration of the Construction Management (CM) services. There have been unexpected issues during well commissioning with respect to the developed well pump capacity, drive and control issues and equipment

repairs that have extended the completion of the Contractor's work. The CM's input is necessary to monitor the contractor's work until the project is complete. Additional funding is needed for Change Order No. 4 to manage the construction, on a time and materials basis.This project is located at Groundwater Wells D-03, D-17, D-18, D-22, and M-09 within the villages of Dededo and Mangilao. Construction activities will be limited to the property boundaries of the well sites.

The original funding authorization for the CM Services was Seven Hundred Forty-Nine Thousand One Hundred Eighty-Four Dollars ($749,184.00), plus a ten percent (10%) contingency of Seventy-Four Thousand Nine Hundred Eighteen Dollars and Forty Cents ($74,918.40). GWA management executed two change orders via the 10% contingency in the amount of Seventy-Four Thousand Seven Hundred Ninety-Six Dollars and Thirty-Two Cents ($74,796.32) and further sought CCU approval for Change Order No. 3 in the amount of One Hundred Nineteen Thousand Three Hundred Eighty-One Dollars ($119,381.00). The proposed Change Order No. 4 is in the amount of Ninety-Eight Thousand Two Hundred Twenty-Two and Zero cents ($98,222.00) which will to bring the total authorized funding amount to a maximum of One Million Forty-One Thousand Five Hundred Eighty-Three dollars and Thirty-Two cents ($1,041,583.32).

The project is scheduled to be substantially completed for four of the wells by end of May 2018 with final project completion by August 2018 and funding will be from USEPA Grant and, if necessary, GWA Bond Funds with a maximum project budget of One Million Forty-One Thousand Five Hundred Eighty-Three Dollars and Thirty-Two Cents ($1,041,583.32).

Comm. Bamba motioned to approve Resolution 26-FY2018, second by Comm. Guthertz. There was no further discussion or objection and the motion passed.

***4.1.4 Resolution 27-FY2018 Relative to Approval of Laboratory Services Procurement**

GWA is nearing the end of its current contract for laboratory testing services, which are required to support our own laboratory operations and provide the needed analysis in support of the Safe Drinking Water Act, and Guam Primary and Secondary Safe Drinking Water Standards. There is a pressing need to replace the existing Laboratory Service Contract that expires in August of this year. The services will be provided to GWA through our new GWA Laboratory facility in upper Tumon.
Approximately Four Hundred Eighty-One Thousand Three Hundred Sixty-One Dollars and Sixty-Eight Cents ($481,361.68) per year based on previous expenditures or One Million Four Hundred Forty-Four Thousand Eighty-Five Dollars ($1,444,085.00) for three (3) years.

Implementation date is August 2018 and will have an initial term of 3 years with an opton to extend to a total of 5 years and will be funded by revenue funds.

The IFB for an indefinite quantity agreement will go out for bid immediately upon PUC approval.

Comm. Guthertz motioned to approve Resolution 27-FY2018, second by Comm. Bamba. There was no further discussion or objection and the motion passed.

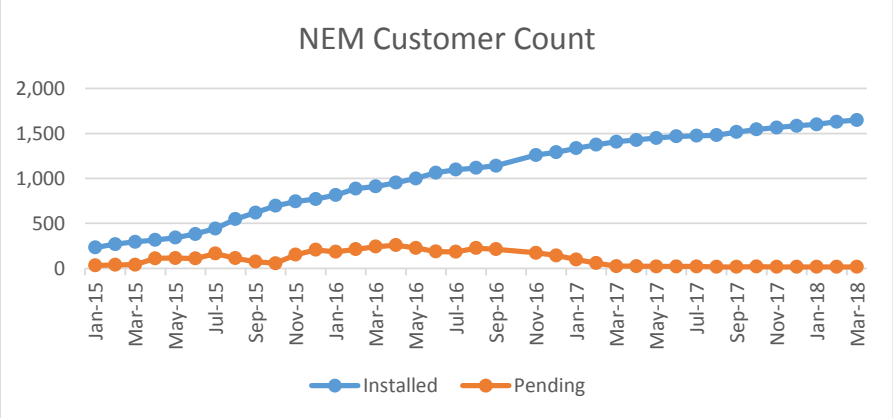
4.2 GPA

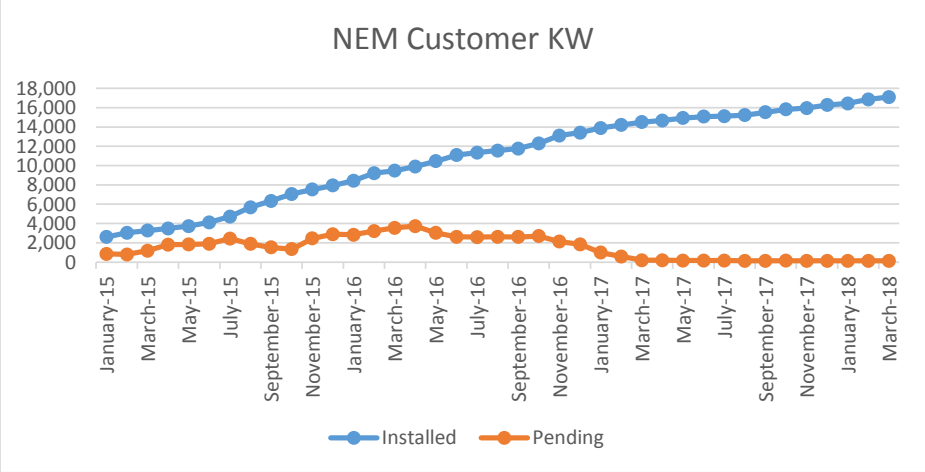
4.2.1 GM Report Update

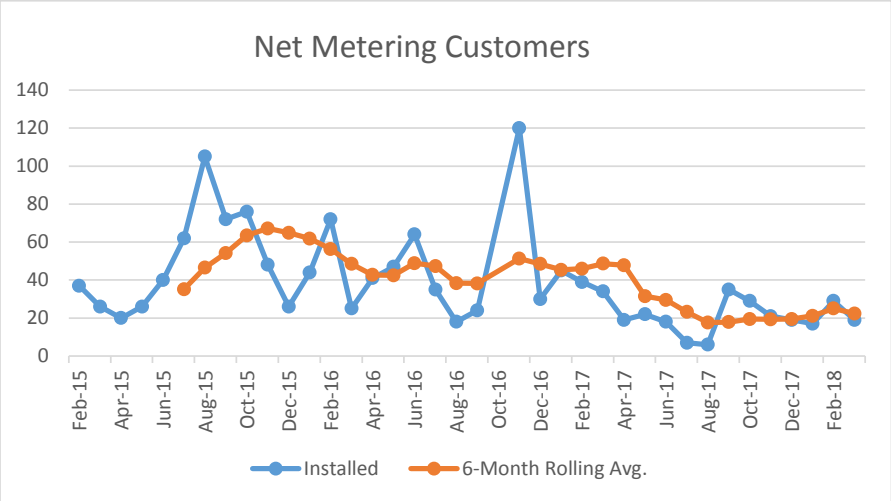
1. **Generation System Update:** The following summarizes the expected generation capacity situation for May 2018. The peak demand for May is estimated at 254 MW. GPA is scheduling the chemical cleaning of the Cabras 1 steam boiler for the end of May. The system is now heading into the higher peak months of the summer. Last year, the peak demand was 261 MW on August 1, 2017.

May 2018 Projected Capacity:	**373 MW**
May 2018 Projected Demand	**254 MW**
Projected Reserve Margin	**119 MW**

2. **Net Metering Summary Ending March 2018:**







3. Renewable Energy Production Summary Thru March 2018:

Energy Production Source:	Kwh	Oil Barrels Avoided	Fuel Cost Avoided
NRG Total Production beginning Oct 2015	120,289,445	201,126	$11,061,931
Net Metering Estimated Production beginning Jan 2015	59,160,124	98,917	$5,440,421
Wind Power Production beginning Jan 2016	895,916	1,498	$82,389
Renewables Total:	**180,345,485**	**301,541**	**$16,584,741**

4 Demand Side Management (DSM) Program Expenses Thru March 2018.

All Expenses – Fiscal Year

Description	FY16	FY17	FY18 as of March 31	Total to Date
Regular/OT Pay	$11,348.80	$22,256.00	$9,540.94	$43,145.74
Other Contractual	$28,278.50	$73,010.05	$2,885.00	$104,173.55
Bank Fees	$155.00	$1,032.06	$190.00	$1,377.06
Paid Rebates–Split AC	$154,700.00	$557,275.00	$552,925.00	$1,264,900.00
Paid Rebates–Central AC	$3,400.00	$8,200.00	$800.00	$12,400.00
Paid Rebates–Washer/Dryer	$2,800.00	$7,425.00	$3,800.00	$14,025.00
Total Expenses	$200,682.30	$669,198.11	$570,140.94	$1,440,021.35

SUMMARY

DESCRIPTION	AMOUNT
Initial DSM Budget FY'16	$1,806,014.00
Interest Income as of Mar 18	$3,900.94
Total Expense	$1,440,021.35
Ending Balance as of Mar 18	$369,893.59
Addtl. Budget: Approved (FY'18)	$1,139,189.00
Total Ending Balance as of Apr 18:	$1,509,082.59

4. **Net Metering Customer Credit Recommendation:** The last public hearing on Net Metering was conducted on April 18, 2018. Marianas Renewable Energy presented their Value of Solar Study. GPA will now proceed in providing the CCU with its analysis and recommendation at the May work session.

5. **Phase II Renewables:** The PUC has approved the entire 120 MW of PV Renewables by KEPCO and HANWHA. GPA would now proceed to sign a Power Purchase Agreement with each of these companies.

6. **Phase III Renewables Bid**: The bid has been issued. The bid request is for about 40MW of solar PV renewables to be constructed on Navy leased land. The energy produced would be stored in batteries during the day and released at nighttime to meet peak time load. The technical proposals are required by June 19, 2018. The opening date of prices of acceptable technical proposals has been set for August 1, 2018.

7. **PUC March 29, 2018 regular meeting resulted in the following:**
    - **Docket 18-06, Petition to Approve Phase II Renewable Award to KEPCO-LG CNS Consortium (approved)**

- **Docket 18-08, Petition to Approve Phase II Renewable Award to HANWHA ENERGY CORPORATION (approved)**
- **GPA Docket 18-09, Petition to Increase EPCM Contract (approved $600,000)**
- **GPA Docket 18-10, Petition to Approve Contract Extension for Tristar Terminals Guam, Inc. (Dock Fees approved; Pipeline part require additional information)**
  - **GPA Docket 18-11, Petition to Approve GPA's Use of Bond Financing Savings for GPA's "Bringing Energy Savings to Schools" (BESTS) and Demand Side Management Program (approved)**
- **Dockets to be considered at the April 26th PUC meeting:**
  - **GPA Docket 18-12, Petition to Approve Invitation for Bid (IFB) for Property Insurance**
  - **GPA Docket 18-13, Petition to Approve the Piti 8 & 9 Contract Extension with Marianas Energy Corporation**

8. **New Power Plant Procurement:**

   - The rezoning of the land for the new power plant is still pending Legislative action. It seems Bill 223-34 would be brought up for deliberation at next week's session. The land rezoning is the critical path at this point for construction of the new power plant.
   - Multi-Step Bid Invitation No. 034-18 was opened on April 5, 2018. Eighteen (18) proponents submitted their technical and financial information. The evaluation team should have a short list of proponents which met the required financial and technical experience delineated in the bid by the end of April 2018. The short-listed proponents would be provided the technical specifications for them to prepare their technical and priced proposals over the next several months which is the next step of the process.

9. **Standard & Poor's Rating:** Our bond rating was not changed despite the situation of the Government of Guam. They did note that they will be monitoring negative Government impact on receivables which certainly will trigger a negative action.

10. **GPA's 50th Anniversary Celebration:** The proclamation signing is scheduled for May 8, 2018 in the CCU conference room. The proclamation kicks off our 50th anniversary program.

11. **Energy Storage System (ESS) Commissioning:** The Hagatna 24 MW and Talofofo 16 MW ESS is on schedule for commissioning in August 2018. These batteries will significantly improve power quality in the system in addition to helping reduce short term outages cause by generating and renewable PV trips. There will also be a reduction in fuel operating cost resulting from not having to run combustion turbines to provide spinning reserves during daytime hours.

12. **Supervisory Control and Data Acquisition (SCADA) Commissioning:** The new SCADA system in Fadian is on track for commissioning in October 2018. The new system is the latest

technology for the GPA power and GWA water and wastewater system. The factory testing of the system's major component is scheduled for early May in Taiwan.

13. **BEST SCHOOLS Program:** A kickoff meeting was held with GDOE Superintendent Jon Fernandez on April 2, 2018. The contract to conduct the evaluation of the GDOE schools has been signed. GPA should have the study and make its appropriate recommendations within the next 4 months.

14. **Key Performance Indicators:** The following are updated indicators thru March 2018. Sales continued to be strong. Fuel oil prices have risen but have been remaining in the $60 to $70 per bbl. range.

4.2.2 Financials

Acting CFO Montellano reported that sales are ahead of projection as well as for LEAC. February had a huge over recovery and LEAC will be adjusted again on May 1.

She mentioned that GPA's financial audit is completed pending official audit report to be released.

Chairman Duenas commented that both GPA and GWA financials are very impressive and congratulated both agencies.

4.2.3 Resolution 2018-09 – Relative to Pressure Digger

The objective of the project is to replace salvaged Pressure Diggers and to provide reliable equipment to give the Authority's Transmission & Distribution personnel the capability and capacity to perform new pole installations to support customer growth and to maintain the power system in a safe and efficient manner. Unavailable equipment translates to extended outages and longer response times.

Existing pressure diggers to be salvaged:

Official #	Description	Year	Repair Assessment
1349	Digger(Diamond Rio)	27 years (1991)	Complete replacement of digging unit and engine overhaul.
1535	Digger(Kenworth)	25 years (1993)	Complete replacement of digging unit.

Pressure Diggers will service the transmission and distribution system island wide and 2 pressure diggers will cost $1,033,998 from Morrico Equipment, the sole bidder. Delivery is set at 400 days after Notice to Proceed and will be funded with FY17 General Plant Capital Improvement Revenue Funds.

It was mentioned that this procurement does not require PUC approval because it's below the $1.5M threshold.

Comm. Bamba motioned to approve Resolution 2018-09, second by Comm. Guthertz. There was no further discussion or objection and the motion passed.

5. OLD BUSINESS - None

6. ANNOUNCEMENTS

6.1 Next CCU Meetings

The Chairman announced that the next CCU meeting would be a work session for GWA on May 15, a GPA work session on May 17 and the monthly regular CCU meeting on May 22.

The Chairman said the Legal Counsel has advised there is a need for Executive Session to discuss personnel and litigation matters. He presented related affidavit for the record and called for a 5-minuted recess before executive session. It was 5:40 p.m.

7. EXECUTIVE SESSION

7.1 Personnel Matter – this was discussed

7.2 Litigation Matter – this was discussed

At approximately 6:20 p.m., Chairman Duenas announced that the meeting has now moved back to Regular Session from Executive Session; four (4) Commissioners were present – Commissioners Duenas, Santos, Bamba and Guthertz. Comm. Sanchez did not attend the meeting and was excused. The Chairman said he will entertain a motion.

Comm. George Bamba motioned that the Commission adopt the decision discussed in Executive Session relative to personnel matter. The motion was second by Comm. Francis Santos. On the motion there was no further discussion or objection and the motion passed. For the record the vote was 4 – yes and 1 – absent.

Details of Executive Session discussion:
After a full discussion between the CCU Board members and Greg Cruz regarding his current employment status, set forth below are the Board's conclusions and directives:

The current situation whereby Mr. Cruz is paid for work performed as CFO through invoicing from a corporation owned by him is not workable going forward.

As of the next regular pay period for GWA, Mr. Cruz will become an at-will, Unclassified employee with a salary of $147,000.00. In lieu of joining the current Government of Guam Retirement Fund, Mr. Cruz will elect in writing one of the options currently offered by the Retirement Fund and the deduction percentage of that option will be the amount deducted from his salary and placed into a 401k or other suitable pre-tax retirement fund approved by the IRS on his behalf. GWA will match that amount and place it in the same fund every month. GWA and Mr. Cruz will be responsible for their respective shares of the FICA withholding and payments.

Mr. Cruz is eligible to have funds deducted for the GWA employee health insurance plan at the current rates. He will also have 30 days of administrative/sick leave each calendar year on a use-it or lose-it basis.

In the event of his termination of employment, Mr. Cruz is not entitled to a severance package.

Mr. Cruz's wages and benefits will be reported along with the regular quarterly Staffing Pattern Report submitted to the Guam Legislature and posted on the GWA website.

Pursuant to requirements set forth in P.L. 34-42, Mr. Cruz will submit a resume for his employment file to verify that he qualifies for the position.
Any amounts owed by GWA on invoices submitted by Ten Column, Inc. up to the close of the next GWA employee pay period shall be paid as a salary bonus in addition to the regular salary pay owed in that period.

Comm. Santos moved to adjourn.

8. ADJOURNMENT

With no further business to discuss, the meeting adjourned at 7:35 p.m.

\\s\\
bls
Attested:

_____	_____
JOSEPH T. DUENAS, Chairman	J. GEORGE BAMBA, Secretary

GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUAHAN
P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

TO: **Consolidated Commission on Utilities**

FROM: **General Manager**

DATE: **May 22, 2018**

SUBJECT: **General Manager's Report**

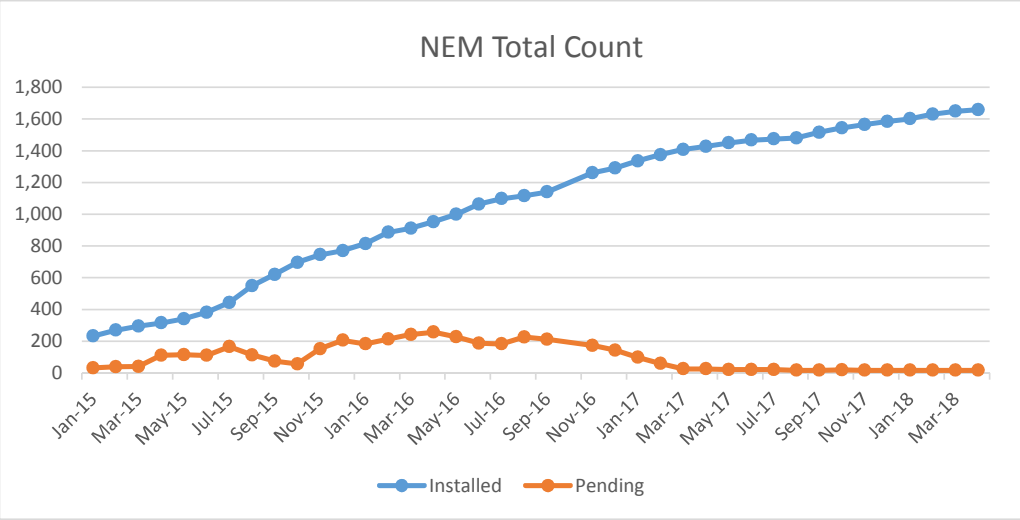
1. **Generation System Update:** The following summarizes the expected generation capacity situation for June 2018. The peak demand for June is projected to be 255 MW. GPA is scheduling the chemical cleaning of the Cabras 1 steam boiler for the end of May. The system is now heading into the higher peak months of the summer. Last year, the peak demand was 261 MW on August 1st, 2017. It is anticipated peak demand for CY 2018 may be 265MW. It appears the Demand Side Management program is having some impact in slowing the system growth in peak demand.

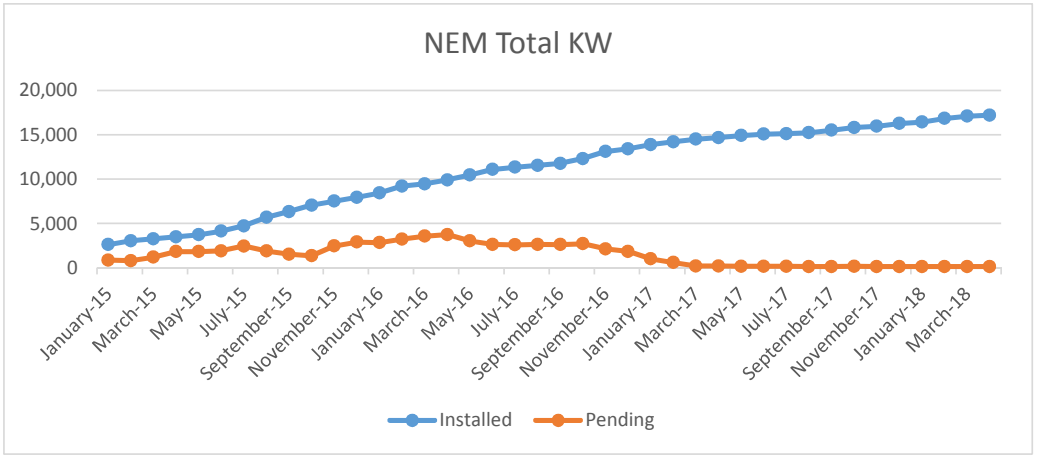
June 2018 Projected Capacity:	**385 MW**
June 2018 Projected Demand	**255 MW**
Projected Reserve Margin	**130 MW**

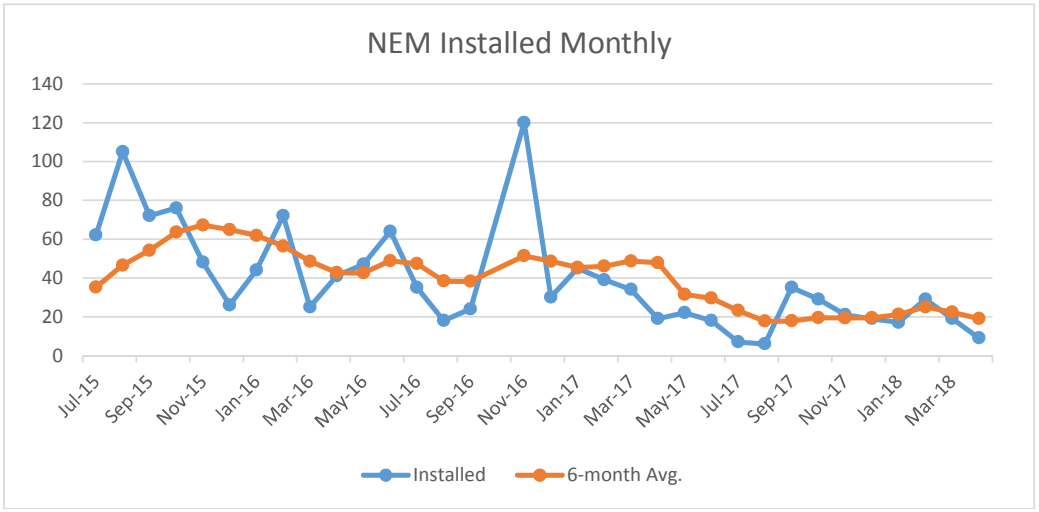
2. Net Metering Summary Ending April 2018:

Description:	**Count**	**Kw**
Active	**1,658**	**17,218**
Pending	17	129
Totals:	1,675	17,347

Service:	**Count**	**KW**	**Kw/Customer**
Residential	1,571	14,242	9.1
Others	87	2,976	34.2
Total:	1,658	17,218	10.4
% Residential	**94.8%**	**82.7%**	
Estimated 12 Months Revenue Impact:	$3,109,983		




NEM Total KW
20,000
15,000
10,000
5,000
0
January-15
March-15
May-15
July-15
September-15
November-15
January-16
March-16
May-16
July-16
September-16
November-16
January-17
March-17
May-17
July-17
September-17
November-17
January-18
March-18
Installed
Pending


NEM Installed Monthly
140
120
100
80
60
40
20
0
Jul-15
Sep-15
Nov-15
Jan-16
Mar-16
May-16
Jul-16
Sep-16
Nov-16
Jan-17
Mar-17
May-17
Jul-17
Sep-17
Nov-17
Jan-18
Mar-18
Installed
6-month Avg.

3. Renewable Energy Production Summary Thru April 2018:

Energy Production Source:	Kwh	Oil Barrels Avoided	Fuel Cost Avoided
NRG Total Production beginning Oct 2015	124,386,711	207,977	$11,438,719
Net Metering Estimated Production beginning Jan 2015	61,981,993	103,635	$5,699,922
Wind Power Production beginning Jan 2016	927,422	1,551	$85,287
Renewables Total:	**187,296,126**	**313,162**	**$17,223,928**

4. Demand Side Management (DSM) Program Expenses Thru April 2018.

All Expenses – Fiscal Year

Description	FY16	FY17	FY18 as of April 30	Total to Date
Labor	$11,348.80	$22,256.00	$11,005.25	$44,610.05
Contracts	$28,278.50	$73,010.05	$2,885.00	$104,173.55
Bank Fees	$155.00	$1,032.06	$230.00	$1,417.06
Paid Rebates-Split AC	$154,700.00	$557,275.00	$649,875.00	$1,361,850.00
Paid Rebates-Central AC	$3,400.00	$8,200.00	$1,300.00	$12,900.00
Paid Rebates-Washer/Dryer	$2,800.00	$7,425.00	$8,600.00	$18,825.00
Total Expenses	$200,682.30	$669,198.11	$673,895.25	$1,543,775.66

SUMMARY

DESCRIPTION	AMOUNT
Initial DSM Budget FY'16	$1,806,014.00
Interest Income as of Apr 18	$3,900.94
Total Expense	$1,543,775.66
Ending Balance as of Apr 18	$266,139.28
Addtl. Budget: Approved (FY'18)	$1,139,189.00
Total Ending Balance as of Apr 18:	**$1,405,328.28**

5. **Net Metering Customer Credit Recommendation:** GPA will complete its analysis and recommendation as to what credit and cost should be applied to net metering energy customers. GPA will provide its recommendation at the June 6, 2018 CCU regular meeting. Once the CCU approves a policy, GPA could petition the PUC for their approval.

6. **Phase II Renewables:** The Signing of the power purchase agreement with KEPCO/LGCNS is tentatively scheduled for May 31st at 9am here at Fadian. We will send out invitations to the CCU.

7. **Phase III Renewables Bid**: The bid has been issued. The bid request is for about 40MW of solar PV renewables to be constructed on Navy leased land. The technical proposals are due on June 19, 2018. The opening date of prices of acceptable technical proposals has been set for August 1, 2018.

8. **PUC April 26, 2018 regular meeting resulted in the following:**
    - **Approval of GPA Docket 18-12, Invitation for Bid (IFB) for Property Insurance**

    Dockets to be considered in the May PUC meeting:
    - **GPA Docket 18-13, Petition to Approve the Piti 8 & 9 Contract Extension with Marianas Energy Corporation**

9. **New Power Plant Procurement:**

    - Public Law 102-34, consolidation of the Ukudo lots and rezoning to M1 took effect on May 16, 2018. The bill was passed by the 34th Legislature by a vote of 11-2. The Governor has allowed the Bill to lapse and become law. GPA will now file the petition for purchase of the 60 acres to the PUC in hopes they act on it in their May or June meeting.
    - Multi-Step Bid Invitation No. 034-18 was opened on April 5, 2018. Eighteen (18) proponents submitted their technical and financial information. The short list of proponents which met the required financial and technical experience requirement is scheduled to be announced by the end of May 2018.

10. **Supervisory Control and Data Acquisition (SCADA) Commissioning:** The new SCADA system being housed in Fadian is on track for commissioning in October 2018. The new system includes the latest technology for the GPA power and GWA water and wastewater system. The factory testing of the system's major components has been rescheduled to early June in Taiwan.

11. **Key Performance Indicators:** The following are updated indicators thru March 2018. Sales continued to be strong. Fuel oil prices have risen again and has passed $70 per bbl.

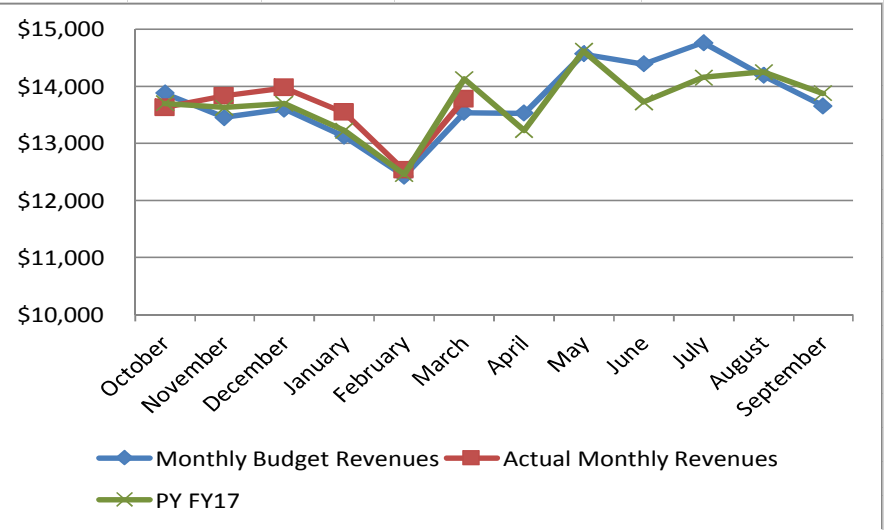
John M. Benavente, P.E.

March 2018 Monthly Financial Highlight

Through March 31, 2018

$000	Monthly Budget Revenues	Actual Monthly Revenues	Variance		PY FY17	CY vs PY Variance	
October	$ 13,873	$ 13,625	$ (248)	↓	$ 13,702	$ (77)	↓
November	13,451	13,827	$ 376	↑	13,622	$ 205	↑
December	13,599	13,968	$ 369	↑	13,695	$ 273	↑
January	13,114	13,534	$ 420	↑	13,220	$ 314	↑
February	12,422	12,522	$ 100	↑	12,454	$ 68	↑
March	13,534	13,776	$ 242	↑	14,123	$ (347)	↓
April	13,525				13,224		
May	14,568				14,617		
June	14,386				13,722		
July	14,759				14,151		
August	14,183				14,244		
September	13,651				13,874		
Total	**$ 165,064**	**$ 81,252**	**$ 1,259**		**$ 164,649**	**$ 435**	

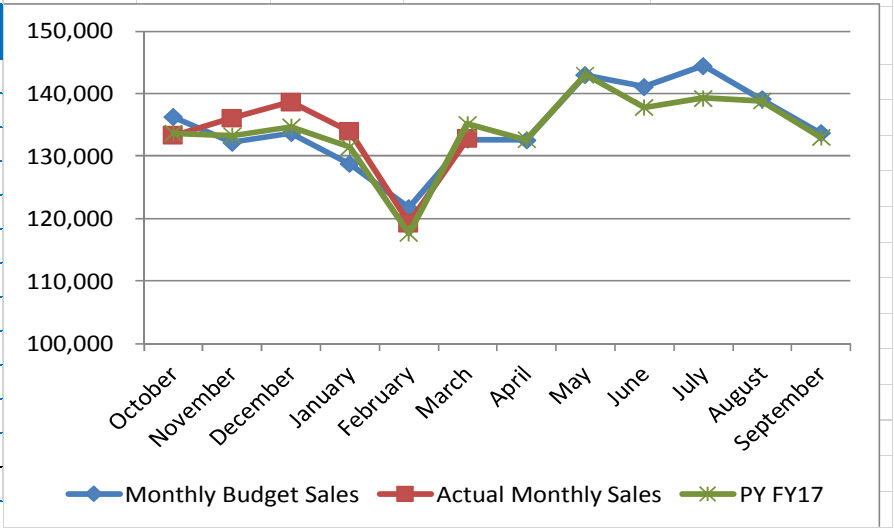
Base Rate Revenue $000



Through March 31, 2018

gwh	Monthly Budget Sales	Actual Monthly Sales	Variance		PY FY17	CY vs PY Variance	
October	136,219	133,262	(2,957)	↓	133,620	(358)	↓
November	132,132	136,044	3,912	↑	133,235	2,809	↑
December	133,625	138,587	4,962	↑	134,634	3,953	↑
January	128,711	133,882	5,170	↑	131,461	2,421	↑
February	121,668	119,241	(2,426)	↓	117,617	1,624	↑
March	132,587	132,693	106	↑	135,131	(2,438)	↓
April	132,532				132,587		
May	142,956				143,013		
June	141,064				137,777		
July	144,404				139,227		
August	139,093				138,797		
September	133,658				132,993		
Total	**1,618,650**	**793,710**	**8,767**		**1,610,093**	**8,011**	

MWh Sales

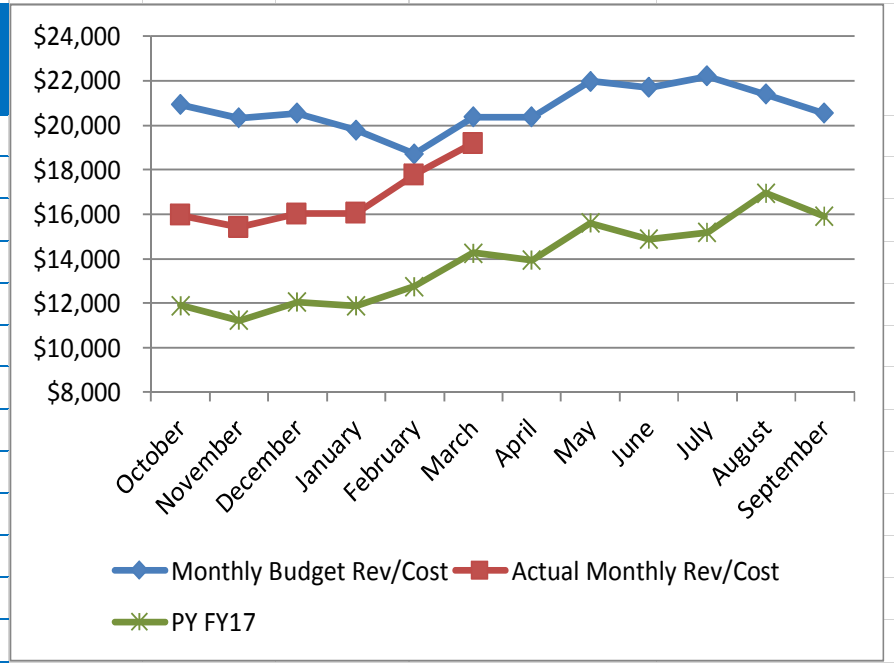


March 2018 Monthly Financial Highlight (Continued)

Through March 31, 2018

$000	Monthly Budget Rev/Cost	Actual Monthly Rev/Cost	Variance		PY FY17	CY vs PY Variance	
October	$ 20,928	$ 15,936	$ (4,992)	↓	$ 11,894	$ 4,042	↑
November	20,300	15,400	$ (4,899)	↓	11,215	$ 4,185	↑
December	20,529	16,007	$ (4,522)	↓	12,036	$ 3,971	↑
January	19,774	16,036	$ (3,738)	↓	11,867	$ 4,169	↑
February	18,692	17,763	$ (930)	↓	12,751	$ 5,012	↑
March	20,370	19,180	$ (1,190)	↓	14,248	$ 4,932	↑
April	20,361				13,940		
May	21,963				15,596		
June	21,672				14,859		
July	22,185				15,175		
August	21,369				16,947		
September	20,534				15,895		
Total	**$ 248,677**	**$ 100,322**	**$ (20,270)**		**$ 166,425**	**$ 26,311**	

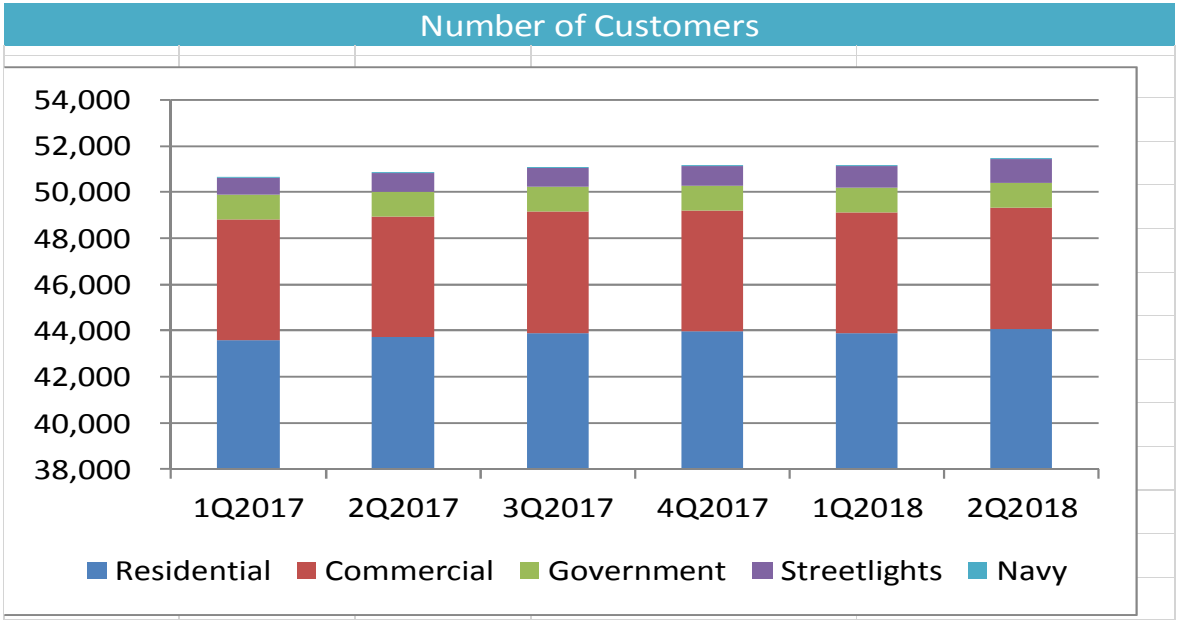
Fuel Revenue/ Cost $000



- Under recovery of LEAC - $14.4 million

March 2018 Monthly Financial Highlight (Continued)

Through March 31, 2018							
	1Q2017	2Q2017	3Q2017	4Q2017	1Q2018	2Q2018	
Residential	43,582	43,718	43,902	43,991	43,898	44,065	
Commercial	5,235	5,236	5,252	5,226	5,231	5,262	
Government	1,071	1,077	1,071	1,073	1,076	1,086	
Streetlights	722	800	824	823	908	1,005	
Navy	1	1	1	1	1	1	
	50,611	50,832	51,050	51,114	51,114	51,419	

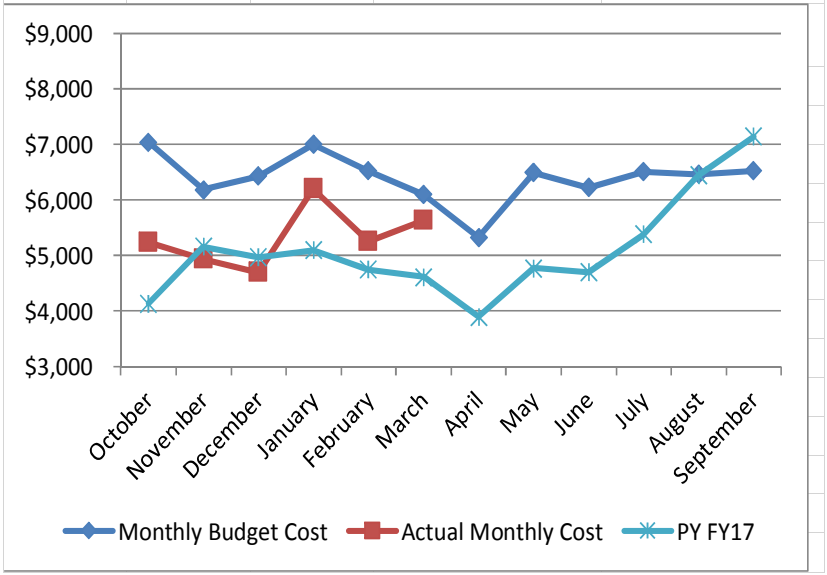


March 2018 Monthly Financial Highlight (Continued)

Through March 31, 2018

$000	Monthly Budget Cost	Actual Monthly Cost	Variance		PY FY17	CY vs PY Variance	
October	$ 7,040	5,239	1,801	↑	4,135	(1,103)	↓
November	6,182	4,941	1,240	↑	5,158	217	↑
December	6,428	4,694	1,735	↑	4,966	273	↑
January	7,001	6,204	797	↑	5,092	(1,112)	↓
February	6,522	5,252	1,270	↑	4,748	(504)	↓
March	6,091	5,638	453	↑	4,612	(1,026)	↓
April	5,320				3,892		
May	6,495				4,772		
June	6,221				4,702		
July	6,508				5,385		
August	6,462				6,445		
September	6,526				7,138		
Total	**$ 76,796**	**$ 31,968**	**$ 7,297**		**$ 61,045**	**$ (3,256)**	

O&M Cost $000



- DSC greater than target of 1.75

Debt service coverage (DSC) calculation-indenture	2013	2014	2015	2016	2017	YTD Mar 2018
Senior lien coverage	3.36	3.16	3.62	3.28	2.65	2.78
Aggregate debt service coverage	1.88	1.98	2.62	3.28	2.65	2.78
Debt service coverage (DSC) calculation-IPP as O&M						
Senior lien coverage	2.16	2.55	2.56	2.45	1.79	1.89
Aggregate debt service coverage	1.21	1.41	1.85	2.45	1.79	1.89

GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUAHAN
P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

GUAM POWER AUTHORITY
FINANCIAL STATEMENT OVERVIEW
March 2018

Attached are the financial statements and supporting schedules for the month and fiscal year ended March 31, 2018.

Summary
The increase in net assets for the month ended was $1.1 million as compared to the anticipated net increase of $0.2 million projected at the beginning of the year. The total kWh sales for the month were 0.08% more than projected and non-fuel revenues were $0.2 million more than the estimated amount. O & M expenses for the month were $5.6 million which was $0.5 million under our projections for the month. Other expenses for the month such as interest expense, IPP costs, (net of interest income and other income) totaled to $3.9 million, which was right in line with the projected amounts. There were no other significant departures from the budget during the period.

Analysis

Description	Previous Month	Current Month	Target
Quick Ratio	2.08	2.22	2
Days in Receivables	38	37	52
Days in Payables	19	31	30
LEAC (Over)/Under Recovery Balance -YTD	$14,390,645	$14,428,269	$15,084,930
T&D Losses	4.92%	4.93%	<7.00%
Debt Service Coverage	1.92	1.89	1.75
Long-term equity ratio	18%	18%	30 – 40%
Days in Cash	131	196	60

The Quick Ratio has been a challenge for GPA historically. However, over the last two fiscal years, the influx of cash from insurance proceeds continued to improve this ratio. GPA has current obligations of approximately $85 million and approximately $189 million in cash and current receivables. Debt Service Coverage ratio is calculated using the methodology in use before the Fiscal Year 2002 change in accounting practice.

Financial Statement
March 2018
Significant Assumptions

The significant assumptions in the financial statements are as follows:

- Accrual cutoff procedures were performed at month end
- An inventory valuation is performed at year-end only
- Accounts Receivable includes accruals based on prior months' usage.

Prepared by:	Reviewed by:	Approved by:
Lenora M. Sanz Controller	John J.E. Kim Chief Financial Officer	John M. Benavente, P.E. General Manager

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)
Statements of Net Position
March 31, 2018 and September 30, 2017

	Unaudited March 2018	Unaudited September 2017	Change from Sept 30 2017
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES			
Current assets:			
Cash and cash equivalents:			
Held by trustee for restricted purposes:			
Interest and principal funds	15,289,095	18,061,879	(2,772,784)
Bond indenture funds	53,008,465	56,907,535	(3,899,070)
Held by Guam Power Authority:			
Bond indenture funds	152,500,338	132,579,889	19,920,449
Self insurance fund-restricted	19,254,852	19,251,372	3,480
Energy sense fund	518,878	1,074,491	(555,613)
Total cash and cash equivalents	240,571,628	227,875,166	12,696,462
Accounts receivable, net	35,022,465	76,563,289	(41,540,824)
Total current receivables	35,022,465	76,563,289	(41,540,824)
Materials and supplies inventory	12,852,329	11,989,745	862,584
Fuel inventory	57,231,975	52,387,369	4,844,606
Prepaid expenses	5,362,440	682,814	4,679,626
Total current assets	351,040,837	369,498,383	(18,457,546)
Utility plant, at cost:			
Electric plant in service	1,041,096,229	1,037,419,517	3,676,712
Construction work in progress	23,104,410	18,382,414	4,721,996
Total	1,064,200,639	1,055,801,931	8,398,708
Less: Accumulated depreciation	(583,219,864)	(565,144,900)	(18,074,964)
Total utility plant	480,980,775	490,657,031	(9,676,256)
Other non-current assets:			
Investment - bond reserve funds held by trustee	48,555,191	48,576,863	(21,672)
Unamortized debt issuance costs	2,645,450	4,267,305	(1,621,855)
Total other non-current assets	51,200,641	52,844,168	(1,643,527)
Total assets	883,222,253	912,999,582	(29,777,329)
Deferred outflow of resources:			
Deferred fuel revenue	14,428,269	16,751,048	(2,322,779)
Unamortized loss on debt refunding	28,468,632	11,076,064	17,392,568
Pension	8,168,718	8,168,718	0
Unamortized forward delivery contract costs	557,678	637,358	(79,680)
Total deferred outflows of resources	51,623,297	36,633,188	14,990,109
	934,845,550	949,632,770	(14,787,220)

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)
Statement of Net Position, Continued
March 31, 2018 and September 30, 2017

	Unaudited March 2018	Unaudited September 2017	Change from Sept 30 2017
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION			
Current liabilities:			
Current maturities of long-term debt	1,630,000	1,780,000	(150,000)
Current obligations under capital leases	16,949,416	16,949,416	0
Accounts payable			
Operations	39,912,904	56,671,898	(16,758,994)
Others	1,291,561	5,425,336	(4,133,775)
Accrued payroll and employees' benefits	1,679,736	1,546,860	132,876
Current portion of employees' annual leave	2,466,478	2,324,895	141,583
Interest payable	12,944,221	15,065,830	(2,121,609)
Customer deposits	8,443,473	8,503,783	(60,310)
Total current liabilities	85,317,789	108,268,018	(22,950,229)
Regulatory liabilities:			
Provision for self insurance	19,550,977	19,550,977	0
Total regulatory liabilities	19,550,977	19,550,977	0
Long term debt, net of current maturities	606,711,843	590,568,862	16,142,981
Obligations under capital leases, net of current portion	18,835,511	30,343,708	(11,508,197)
Net Pension liability	62,171,523	64,596,253	(2,424,730)
DCRS sick leave liability	4,008,397	4,008,397	0
Employees' annual leave net of current portion	806,762	806,762	0
Customer advances for construction	380,726	369,180	11,546
Total liabilities	797,783,528	818,512,157	(20,728,629)
Deferred inflows of resources:			
Unearned forward delivery contract revenue	2,044,062	2,336,071	(292,009)
Pension	732,788	732,788	0
Total deferred inflows of resources	2,776,850	3,068,859	(292,009)
Commitments and contigencies			
Net Position:			
Net investment in capital assets	(62,119,041)	(43,869,737)	(18,249,304)
Restricted	22,476,697	15,232,832	7,243,866
Unrestricted	173,927,515	156,688,658	17,238,857
Total net position	134,285,171	128,051,754	6,233,417
	934,845,550	949,632,770	(14,787,220)

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM
Statement of Revenues, Expenses and Changes in Net Assets

	March 31			Six Months Ended March 31		
	Unaudited 2018	Unaudited 2017	% of change Inc (dec)	Unaudited 2018	Unaudited 2017	% of change Inc (dec)
Revenues						
Sales of electricity	32,955,817	28,371,004	16	181,574,210	154,828,291	17
Miscellaneous	179,601	317,287	(43)	1,091,173	1,142,293	(4)
Total	33,135,418	28,688,291	16	182,665,383	155,970,584	17
Bad debt expense	(86,583)	(93,433)	(7)	(519,500)	(510,100)	2
Total revenues	33,048,835	28,594,858	16	182,145,883	155,460,484	17
Operating and maintenance expenses						
Production fuel	19,185,808	14,248,215	35	100,328,043	74,012,032	36
Other production	1,497,918	1,280,763	17	7,859,867	7,639,933	3
	20,683,726	15,528,978	33	108,187,910	81,651,965	32
Depreciation	3,118,612	2,453,646	27	19,251,602	21,268,073	(9)
Energy conversion cost	1,401,419	1,587,427	(12)	9,122,705	9,361,910	(3)
Transmission & distribution	1,093,678	917,602	19	6,481,322	6,114,665	6
Customer accounting	469,792	306,771	53	2,520,808	2,052,407	23
Administrative & general	2,489,968	2,013,681	24	14,586,319	12,395,092	18
Total operating and maintenance expenses	29,257,195	22,808,105	28	160,150,666	132,844,112	21
Operating income	3,791,640	5,786,753	(34)	21,995,217	22,616,372	(3)
Other income (expenses)						
Interest income	(233,221)	276,558	(184)	1,227,079	665,503	84
Interest expense and amortization	(2,664,468)	(2,862,233)	(7)	(16,146,953)	(17,018,822)	(5)
Bond issuance costs	61,350	76,827	(20)	(2,114,087)	460,962	(559)
Allowance for funds used during construction	198,949	313,714	(37)	1,416,507	1,914,828	(26)
Other expense	(9,395)	(4,291)	0	(223,026)	(29,764)	649
Total other income (expenses)	(2,646,785)	(2,199,425)	20	(15,840,480)	(14,007,293)	13
Income (loss) before capital contributions	1,144,855	3,587,328	(68)	6,154,737	8,609,079	(29)
Capital contributions	3,778	25,073	0	78,680	36,561	115
Increase (decrease) in net assets	1,148,633	3,612,401	(68)	6,233,417	8,645,640	(28)
Total net assets at beginning of period (restated)	133,136,538	82,093,568	62	128,051,754	77,060,329	66
Total net assets at end of period	134,285,171	85,705,969	57	134,285,171	85,705,969	57

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)
Statements of Cash Flows
Period Ended March 31, 2018

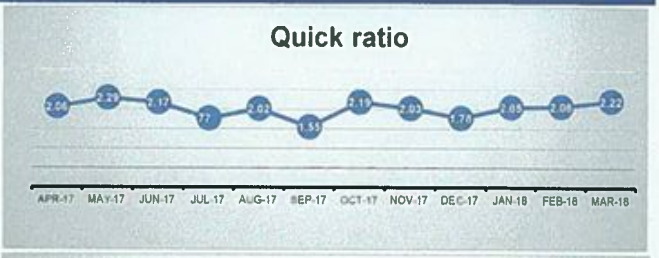
	Month Ended 3/31/2018	YTD Ended 3/31/2018
Increase(decrease) in cash and cash equivalents		
Cash flows from operating activities:		
Cash received from customers	$73,609,522	$ 223,654,120
Cash payments to suppliers and employees for goods and services	14,341,003	189,786,860
Net cash provided by operating activities	$59,268,519	33,867,260
Cash flows from investing activities:		
Interest and dividends on investments and bank accounts	(233,221)	1,227,079
Net cash provided by investing activities	(233,221)	1,227,079
Cash flows from non-capital financing activities		
Interest paid on short term debt	(6,666)	(37,975)
Provision for self insurance funds	(612)	(3,480)
Net cash provided by noncapital financing activities	(7,278)	(41,455)
Cash flows from capital and related financing activities		
Acquisition of utility plant	(1,077,072)	(9,575,345)
Principal paid on bonds and other long-term debt	-	(3,550,000)
Interest paid on bonds(net of capitalized interest)	198,949	(14,959,493)
Interest paid on capital lease obligations	(270,472)	(1,854,587)
Interest & principal funds held by trustee	(2,750,591)	2,772,784
Reserve funds held by trustee	(26,915)	21,672
Bond funds held by trustee	317,958	3,899,070
Principal payment on capital lease obligations	(1,873,625)	(11,508,197)
Grant from DOI/FEMA	3,778	78,680
Debt issuance costs/loss on defeasance	(333,577)	19,542,981
Net cash provided by (used in) capital and related financing activities	(5,811,567)	(15,132,435)
Net (decrease) increase in cash and cash equivalents	53,216,453.81	19,920,449
Cash and cash equivalents, beginning	99,283,884	132,579,889
Cash and cash equivalents-Funds held by GPA, March 31, 2018	**$ 152,500,338**	**$ 152,500,338**

GUAM POWER AUTHORITY
(A COMPONENT UNIT OF THE GOVERNMENT OF GUAM)
Statements of Cash Flows, continued
Period Ended March 31 2018

	Month Ended 3/31/2018	YTD Ended 3/31/2018
Reconciliation of operating earnings to net cash provided by operating activities:		
Operating earnings net of depreciation expense and excluding interest income	$3,791,640	$21,995,217
Adjustments to reconcile operating earnings to net cash provided by operating activities:		
Depreciation and amortization	3,118,612	19,251,602
Other expense	51,955	(2,337,113)
(Increase) decrease in assets:		
Accounts receivable	40,598,258	41,540,824
Materials and inventory	(49,086)	(862,584)
Fuel inventory	(6,474,651)	(4,844,606)
Prepaid expenses	971,146	(4,679,626)
Unamortized debt issuance cost	23,667	1,621,855
Deferred fuel revenue	(37,624)	2,322,779
Unamortized loss on debt refunding	229,166	(17,392,568)
Unamortized forward delivery contract costs	13,280	79,680
Increase (decrease) in liabilities:		
Accounts payable-operations	18,874,624	(16,758,994)
Accounts payable-others	(1,889,955)	(3,578,162)
Accrued payroll and employees' benefits	426,427	132,876
Net pension liability	(446,562)	(2,424,730)
Employees' annual leave	33,808	141,583
Customers deposits	82,482	(60,310)
Customer advances for construction	-	11,546
Unearned forward delivery contract revenue	(48,668)	(292,009)
Net cash provided by operating activities	**$59,268,519**	**$ 33,867,260**

Guam Power Authority
Financial Analysis
March 31, 2018

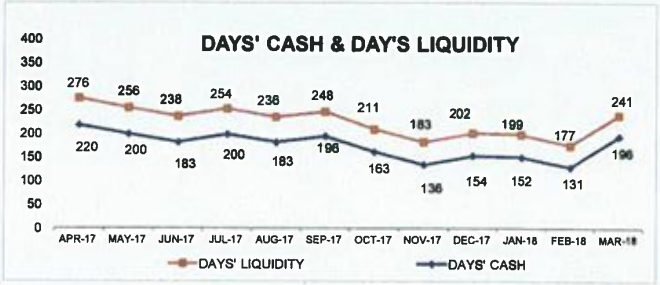
	Quick Ratio		
A	Reserve Funds Held by GPA		152,500,338
B	Current Accounts Receivable		36,572,815
C	Total Cash and A/R (A+B)		189,073,153
D	Total Current Liabilities		85,317,789
E	**Quick Ratio (F/G)**		**2.22**
	Days in Receivables		
A	FY 18 Moving 12 Mos -Actual		357,819,973
B	No. of Days		365
C	Average Revenues per day (A/B)		980,329
D	Current Accounts Receivable		36,572,815
E	**Days in Receivables (D/C)**		**37**
	Days in Payables		
A	FY 18 Moving 12 Months-Actual		479,854,934
B	No. of Days		365
C	Average Payables per day (A/B)		1,314,671
D	Current Accounts Payables		41,204,465
E	**Days in Payables (D/C)**		**31**
	Long term equity ratio		
A	Equity	$	134,285,171.00
B	Total Long term Liability	$	593,226,705.00
C	Total Equity and liability	$	727,511,876.00
D	**Long term equity ratio (A/C)**		**18%**
	Days cash on hand		
A	Unrestricted cash & cash equivalents		152,500
B	No. of Days -YTD		181
C	A x B		27,602,561
D	Total Operating expenses excluding depreci		140,899
E	**Days cash on hand**		**196**
	Days' Liquidity		
A	Unrestricted cash , cash equivalents & rev		187,500
B	No. of Days -YTD		181
C	A x B		33,937,561
D	Total Operating expenses excluding depreci		140,899
E	**Days liquidity**		**241**











GUAM POWER AUTHORITY
ACCRUED REVENUE
MARCH 2018

	FOR THE MONTH ENDED MARCH		SIX MONTHS ENDED MARCH	
	2018	2017	2018	2017
KWH SALES:				
Residential	41,541,824	40,911,781	248,796,200	240,570,451
Small Gen. Non Demand	6,976,607	6,767,505	41,058,895	40,594,512
Small Gen. Demand	15,917,309	16,300,307	93,074,431	93,306,665
Large General	26,155,199	26,173,462	156,408,481	155,603,304
Independent Power Producer	28,536	83,841	310,730	518,040
Private St. Lights	32,791	34,097	201,578	244,710
Sub-total	90,652,265	90,270,993	539,850,315	530,837,682
Government Service:				
Small Non Demand	1,193,794	1,123,675	7,340,385	6,641,796
Small Demand	7,889,205	8,171,598	47,815,506	48,438,749
Large	6,226,210	6,340,287	38,228,791	36,763,223
Street Lighting	743,499	829,968	4,308,590	4,966,126
Sub-total	16,052,709	16,465,529	97,693,272	96,809,894
Total	106,704,974	106,736,522	637,543,587	627,647,576
U. S. Navy	25,988,485	28,394,970	156,166,216	158,051,383
GRAND TOTAL	132,693,459	135,131,492	793,709,803	785,698,959
REVENUE:				
Residential	$ 10,154,660	$ 8,255,658	$ 56,194,689	$ 45,873,312
Small Gen. Non Demand	$ 1,988,097	$ 1,647,869	$ 10,947,044	$ 9,408,937
Small Gen. Demand	$ 4,266,730	$ 3,674,304	$ 23,214,676	$ 20,019,638
Large General	$ 6,565,683	$ 5,370,285	$ 36,077,615	$ 30,468,327
Independent Power Producer	$ 7,406	$ 17,451	$ 70,450	$ 106,332
Private St. Lights	$ 25,785	$ 25,012	$ 152,925	$ 156,630
Sub-total	$ 23,008,362	$ 18,990,578	$ 126,657,399	$ 106,033,175
Government Service:				
Small Non Demand	$ 356,541	$ 289,226	$ 2,033,559	$ 1,628,343
Small Demand	$ 2,224,973	$ 1,956,670	$ 12,493,608	$ 11,029,161
Large	$ 1,707,269	$ 1,454,690	$ 9,644,575	$ 8,066,417
Street Lighting	$ 455,729	$ 447,332	$ 2,604,959	$ 2,744,733
Sub-total	$ 4,744,512	$ 4,147,918	$ 26,776,701	$ 23,468,654
Total	$ 27,752,874	$ 23,138,496	$ 153,434,100	$ 129,501,829
U. S. Navy	$ 5,202,943	$ 5,232,508	$ 28,140,109	$ 25,326,463
GRAND TOTAL	$ 32,955,817	$ 28,371,004	$ 181,574,210	$ 154,828,292
NUMBER OF CUSTOMERS:				
Residential	44,065	43,718	44,004	43,623
Small Gen. Non Demand	4,154	4,128	4,141	4,121
Small Gen. Demand	987	989	984	989
Large General	119	116	118	116
Independent Power Producer	2	3	3	3
Private St. Lights	526	528	528	524
Sub-total	49,853	49,482	49,777	49,375
Government Service:				
Small Non Demand	689	684	682	683
Small Demand	350	348	351	347
Large	47	45	47	45
Street Lighting	479	272	404	212
Sub-total	1,565	1,349	1,484	1,286
Total	51,418	50,831	51,261	50,660
US Navy	1	1	1	1
	51,419	50,832	51,262	50,661

GUAM POWER AUTHORITY
ACCRUED REVENUE

	TWELVE MONTHS ENDED	MARCH 2018	FEBRUARY 2018	JANUARY 2018	DECEMBER 2017	NOVEMBER 2017	OCTOBER 2017	SEPTEMBER 2017	AUGUST 2017	JULY 2017	JUNE 2017	MAY 2017	APRIL 2017
KWH SALES:													
Residential	514,561,351	41,541,824	36,809,815	42,067,765	43,307,944	43,386,853	41,682,000	41,491,015	44,434,719	45,094,364	45,699,553	46,940,445	42,105,054
Small General Non Demand	84,364,083	6,976,607	6,154,115	6,844,713	6,956,278	7,060,041	7,067,142	7,022,092	7,347,440	7,087,373	7,546,692	7,375,238	6,926,353
Small General Demand	189,818,690	15,917,309	14,164,319	15,562,774	15,848,505	15,789,397	15,792,127	15,509,408	16,488,257	15,839,125	16,853,701	16,415,592	15,638,177
Large General	315,378,408	26,155,199	23,674,407	26,242,185	27,485,887	26,267,861	26,583,141	25,432,034	27,038,013	27,119,633	26,399,095	27,209,329	25,771,823
Private Outdoor Lighting	449,276	32,791	32,408	32,358	35,129	35,042	33,851	76,532	33,324	35,412	36,199	31,856	34,275
Independent Power Producer	754,513	28,536	28,976	27,011	40,140	93,823	92,244	34,586	57,754	82,800	93,447	97,039	78,158
Sub-Total	1,105,326,321	90,652,265	80,864,040	90,776,805	93,673,883	92,632,817	91,250,505	89,565,666	95,399,508	95,258,706	96,628,687	98,069,599	90,553,840
Government Service:													
Small Non Demand	14,600,834	1,193,794	1,119,571	1,248,251	1,272,026	1,255,131	1,251,612	1,246,106	1,243,487	1,254,979	1,154,625	1,242,514	1,118,738
Small Demand	96,255,358	7,889,205	7,377,578	8,102,981	8,063,549	8,098,974	8,283,218	8,084,368	8,147,386	7,962,844	7,847,851	8,507,100	7,890,703
Large	76,363,536	6,226,210	5,905,830	6,315,619	6,812,255	6,550,623	6,418,254	6,493,449	6,520,699	6,219,351	6,043,966	6,712,069	6,145,212
Street Lighting (Agencies)	8,857,071	743,499	669,689	716,067	697,921	668,464	812,949	697,002	877,130	638,971	843,815	771,506	720,057
Sub-Total	196,076,800	16,052,709	15,072,669	16,382,918	16,845,750	16,573,193	16,766,033	16,520,925	16,788,702	16,075,944	15,890,058	17,233,190	15,874,710
Total	1,301,403,121	106,704,974	95,936,708	107,159,724	110,519,633	109,206,010	108,016,537	106,086,591	112,188,210	111,334,651	112,518,745	115,302,789	106,428,550
U.S. Navy	316,700,734	25,988,485	23,304,608	26,722,147	28,067,673	26,837,883	25,245,420	26,906,320	26,608,721	27,892,205	25,258,344	27,710,121	26,158,807
Grand Total	1,618,103,855	132,693,459	119,241,316	133,881,870	138,587,306	136,043,893	133,261,957	132,992,911	138,796,930	139,226,856	137,777,089	143,012,910	132,587,357
REVENUE:													
Residential	$ 110,923,355	$ 10,154,660	$ 9,633,432	$ 8,985,179	$ 9,238,911	$ 9,263,463	$ 8,919,044	$ 8,887,320	$ 9,762,810	$ 9,056,344	$ 9,109,920	$ 9,464,539	$ 8,447,732
Small General Non Demand	$ 21,578,839	$ 1,988,097	$ 1,869,658	$ 1,741,922	$ 1,765,223	$ 1,789,263	$ 1,792,881	$ 1,783,997	$ 1,902,660	$ 1,709,931	$ 1,790,832	$ 1,782,557	$ 1,661,816
Small General Demand	$ 45,264,555	$ 4,266,730	$ 4,006,949	$ 3,714,258	$ 3,769,415	$ 3,699,298	$ 3,758,026	$ 3,692,273	$ 3,964,157	$ 3,527,191	$ 3,704,661	$ 3,828,208	$ 3,333,389
Large General	$ 69,787,348	$ 6,565,683	$ 6,086,686	$ 5,762,313	$ 6,067,740	$ 5,793,817	$ 5,801,375	$ 5,643,059	$ 6,028,539	$ 5,589,484	$ 5,443,855	$ 5,621,797	$ 5,362,999
Private Outdoor Lighting	$ 303,253	$ 25,785	$ 25,733	$ 25,133	$ 25,553	$ 25,471	$ 25,250	$ 25,361	$ 25,094	$ 25,099	$ 25,329	$ 24,432	$ 25,014
Independent Power Producer	$ 175,149	$ 7,406	$ 7,969	$ 6,029	$ 9,249	$ 20,053	$ 19,744	$ 17,076	$ 14,804	$ 17,270	$ 19,157	$ 20,386	$ 16,006
Sub-Total	$ 248,032,498	$ 23,008,362	$ 21,630,428	$ 20,234,834	$ 20,876,091	$ 20,591,366	$ 20,316,320	$ 20,049,087	$ 21,698,063	$ 19,925,320	$ 20,093,753	$ 20,741,919	$ 18,866,957
Government Service:													
Small Non Demand	$ 3,918,224	$ 356,541	$ 335,126	$ 332,434	$ 341,017	$ 334,963	$ 333,478	$ 333,079	$ 332,325	$ 319,135	$ 297,031	$ 313,617	$ 289,279
Small Demand	$ 24,294,525	$ 2,224,973	$ 2,094,220	$ 2,016,922	$ 2,046,340	$ 2,043,720	$ 2,067,433	$ 2,050,292	$ 2,052,253	$ 1,907,628	$ 1,885,990	$ 1,985,615	$ 1,919,140
Large	$ 18,557,524	$ 1,707,269	$ 1,628,297	$ 1,525,771	$ 1,652,805	$ 1,583,988	$ 1,546,446	$ 1,575,080	$ 1,573,445	$ 1,424,292	$ 1,393,449	$ 1,572,201	$ 1,374,482
Street Lighting (Agencies)	$ 5,298,922	$ 455,729	$ 439,995	$ 427,482	$ 416,951	$ 419,351	$ 445,451	$ 436,808	$ 516,047	$ 418,012	$ 451,933	$ 439,403	$ 431,759
Sub-Total	$ 52,069,195	$ 4,744,512	$ 4,497,638	$ 4,302,609	$ 4,457,113	$ 4,382,022	$ 4,392,807	$ 4,395,259	$ 4,474,070	$ 4,069,066	$ 4,028,403	$ 4,311,036	$ 4,014,660
Total	$ 300,101,693	$ 27,752,874	$ 26,128,065	$ 24,537,443	$ 25,333,204	$ 24,973,388	$ 24,709,127	$ 24,444,346	$ 26,172,133	$ 23,994,386	$ 24,122,156	$ 25,052,955	$ 22,881,617
U.S. Navy	$ 57,718,280	$ 5,202,943	$ 4,155,974	$ 5,033,103	$ 4,642,130	$ 4,254,065	$ 4,851,893	$ 5,325,383	$ 5,019,382	$ 5,331,702	$ 4,458,411	$ 5,160,265	$ 4,283,028
Grand Total	$ 357,819,973	$ 32,955,817	$ 30,284,040	$ 29,570,546	$ 29,975,334	$ 29,227,453	$ 29,561,020	$ 29,769,728	$ 31,191,516	$ 29,326,087	$ 28,580,567	$ 30,213,220	$ 27,164,645
NUMBER OF CUSTOMERS:													
Residential	43,947	44,065	43,995	44,119	43,898	43,996	43,950	43,991	43,969	43,866	43,902	43,803	43,807
Small General Non Demand	4,137	4,154	4,153	4,142	4,129	4,131	4,134	4,127	4,134	4,131	4,145	4,130	4,137
Small General Demand	984	987	991	981	981	982	982	980	981	984	988	988	988
Large General	117	119	118	119	118	117	119	116	115	116	116	117	115
Private Outdoor Lighting	528	526	527	527	530	527	530	526	527	526	527	530	528
Independent Power Producer	3	2	2	2	3	3	3	3	3	3	3	4	4
Sub-Total	49,716	49,853	49,786	49,890	49,659	49,756	49,718	49,743	49,729	49,626	49,681	49,572	49,579
Government Service:													
Small Non Demand	681	689	684	686	679	678	676	675	678	678	677	684	684
Small Demand	350	350	351	350	350	354	351	353	351	352	349	346	347
Large	46	47	47	47	47	47	46	45	45	45	45	45	45
Street Lighting (Agencies)	349	479	421	389	378	378	377	297	297	297	297	293	290
Sub-Total	1,426	1,565	1,503	1,472	1,454	1,457	1,450	1,370	1,371	1,372	1,368	1,368	1,366
Total	51,142	51,418	51,289	51,362	51,113	51,213	51,168	51,113	51,100	50,998	51,049	50,940	50,945
U.S. Navy	1	1	1	1	1	1	1	1	1	1	1	1	1
Grand Total	51,143	51,419	51,290	51,363	51,114	51,214	51,169	51,114	51,101	50,999	51,050	50,941	50,946

GUAM POWER AUTHORITY
ACCRUED REVENUE
MARCH 2018

RATE	NUMBER OF CUSTOMERS	KWH SALES	TOTAL REVENUE AMOUNT	TOTAL REVENUE C/KWH	BASE RATE REVENUE C/KWH	BASE RATE REVENUE AMOUNT	AVERAGE PER CUSTOMER KWH	AVERAGE PER CUSTOMER REVENUE	NON-FUEL C/KWH	NON-FUEL AMOUNT	FUEL C/KWH	FUEL AMOUNT
Month												
R Residential	44,065	41,541,824	$ 10,154,660	$ 24.44	$ 24.44	$ 10,154,660	943	$ 230.45	$ 9.7178	$ 4,036,961	$ 14.7266	$ 6,117,698
G Small Gen. Non Demand	4,154	6,976,607	$ 1,988,097	$ 28.50	$ 28.50	$ 1,988,097	1,679	$ 478.60	$ 13.7700	$ 960,680	$ 14.7266	$ 1,027,417
J Small Gen. Demand	987	15,917,309	$ 4,266,730	$ 26.81	$ 26.81	$ 4,266,730	16,127	$ 4,322.93	$ 12.0839	$ 1,923,433	$ 14.7217	$ 2,343,297
P Large General	119	26,155,199	$ 6,565,683	$ 25.10	$ 25.10	$ 6,565,683	219,792	$ 55,173.81	$ 10.4462	$ 2,732,228	$ 14.6566	$ 3,833,455
I Independent PowerProducer	2	28,536	$ 7,406	$ 25.95	$ 25.95	$ 7,406	14,268	$ 3,703.07	$ 11.7182	$ 3,344	$ 14.2358	$ 4,062
H Private St. Lights	526	32,791	$ 25,785	$ 78.64	$ 78.64	$ 25,785	62	$ 49.02	$ 63.9091	$ 20,956	$ 14.7266	$ 4,829
Sub-Total	49,853	90,652,265	$ 23,008,362	$ 25.38	$ 25.38	$ 23,008,362	1,818	$ 461.52	$ 10.6755	$ 9,677,603	$ 14.7054	$ 13,330,758
Government Service:												
S Small Non Demand	689	1,193,794	$ 356,541	$ 29.87	$ 29.87	$ 356,541	1,733	$ 517.48	$ 15.1396	$ 180,736	$ 14.7266	$ 175,805
K Small Demand	350	7,889,205	$ 2,224,973	$ 28.20	$ 28.20	$ 2,224,973	22,541	$ 6,357.07	$ 13.4762	$ 1,063,161	$ 14.7266	$ 1,161,812
L Large	47	6,226,210	$ 1,707,269	$ 27.42	$ 27.42	$ 1,707,269	132,473	$ 36,324.86	$ 12.8692	$ 801,265	$ 14.5514	$ 906,004
F Street Lighting (Agencies)	479	743,499	$ 455,729	$ 61.30	$ 61.30	$ 455,729	1,552	$ 951.42	$ 46.5686	$ 346,237	$ 14.7266	$ 109,492
Sub-Total	1,565	16,052,709	$ 4,744,512	$ 29.56	$ 29.56	$ 4,744,512	10,257	$ 3,031.64	$ 14.8972	$ 2,391,399	$ 14.6587	$ 2,353,113
	51,418	106,704,974	$ 27,752,874	$ 26.01	$ 26.01	$ 27,752,874	2,075	$ 539.75	$ 11.3106	$ 12,069,002	$ 14.6984	$ 15,683,871
U.S. Navy	1	25,988,485	$ 5,202,943	$ 20.02	$ 20.02	$ 5,202,943			$ 6.5669	$ 1,706,643	$ 13.4533	$ 3,496,300
TOTAL	51,419	132,693,459	$ 32,955,817	$ 24.84	$ 24.84	$ 32,955,817	2,581	$ 640.93	$ 10.3816	$ 13,775,645	$ 14.4545	$ 19,180,172
Six Months Ended March 2018												
R Residential	44,004	248,796,200	$ 56,194,689	$ 22.59	$ 22.59	$ 56,194,689	5,654	$ 1,277.04	$ 9.6268	$ 23,951,125	$ 12.9598	$ 32,243,564
G Small Gen. Non Demand	4,141	41,058,895	$ 10,947,044	$ 26.66	$ 26.66	$ 10,947,044	9,916	$ 2,643.89	$ 13.6795	$ 5,616,639	$ 12.9823	$ 5,330,406
J Small Gen. Demand	984	93,074,431	$ 23,214,676	$ 24.94	$ 24.94	$ 23,214,676	94,588	$ 23,592.15	$ 12.0073	$ 11,175,765	$ 12.9347	$ 12,038,910
P Large General	118	156,408,481	$ 36,077,615	$ 23.07	$ 23.07	$ 36,077,615	1,321,762	$ 304,881.26	$ 10.3637	$ 16,209,732	$ 12.7026	$ 19,867,884
I Independent PowerProducer	3	310,730	$ 70,450	$ 22.67	$ 22.67	$ 70,450	124,292	$ 28,179.92	$ 10.7689	$ 33,462	$ 11.9035	$ 36,988
H Private St. Lights	528	201,578	$ 152,925	$ 75.86	$ 75.86	$ 152,925	382	$ 289.72	$ 63.1364	$ 127,269	$ 12.7275	$ 25,656
Sub-Total	49,777	539,850,315	$ 126,657,399	$ 23.46	$ 23.46	$ 126,657,399	10,845	$ 2,544.50	$ 10.5796	$ 57,113,992	$ 12.8820	$ 69,543,407
Government Service:												
S Small Non Demand	682	7,340,385	$ 2,033,559	$ 27.70	$ 27.70	$ 2,033,559	10,763	$ 2,981.76	$ 15.0002	$ 1,101,071	$ 12.7035	$ 932,488
K Small Demand	351	47,815,506	$ 12,493,608	$ 26.13	$ 26.13	$ 12,493,608	136,227	$ 35,594.32	$ 13.4136	$ 6,413,759	$ 12.7152	$ 6,079,849
L Large	47	38,228,791	$ 9,644,575	$ 25.23	$ 25.23	$ 9,644,575	816,273	$ 205,933.99	$ 12.6724	$ 4,844,492	$ 12.5562	$ 4,800,083
F Street Lighting (Agencies)	404	4,308,590	$ 2,604,959	$ 60.46	$ 60.46	$ 2,604,959	10,674	$ 6,453.24	$ 47.7187	$ 2,056,004	$ 12.7410	$ 548,956
Sub-Total	1,484	97,693,272	$ 26,776,701	$ 27.41	$ 27.41	$ 26,776,701	65,853	$ 18,049.68	$ 14.7557	$ 14,415,326	$ 12.6533	$ 12,361,375
U.S. Navy	1	156,166,216	$ 28,140,109	$ 18.02	$ 18.02	$ 28,140,109			$ 6.2257	$ 9,722,486	$ 11.7936	$ 18,417,623
TOTAL	51,262	793,709,803	$ 181,574,210	$ 22.88	$ 22.88	$ 181,574,210	15,484	$ 3,542.12	$ 10.2370	$ 81,251,804	$ 12.6397	$ 100,322,406
Twelve Months Ended March 2018												
R Residential	43,947	514,561,351	$ 110,923,355	$ 21.56	$ 21.56	$ 110,923,355	11,709	$ 2,524.04	$ 9.5997	$ 49,396,200	$ 11.9572	$ 61,527,155
G Small Gen. Non Demand	4,137	84,364,083	$ 21,578,839	$ 25.58	$ 25.58	$ 21,578,839	20,391	$ 5,215.74	$ 13.5990	$ 11,472,642	$ 11.9793	$ 10,106,197
J Small Gen. Demand	984	189,818,690	$ 45,264,555	$ 23.85	$ 23.85	$ 45,264,555	192,824	$ 45,981.09	$ 11.8947	$ 22,578,377	$ 11.9515	$ 22,686,178
P Large General	117	315,378,408	$ 69,787,348	$ 22.13	$ 22.13	$ 69,787,348	2,693,823	$ 596,048.52	$ 10.3396	$ 32,608,807	$ 11.7886	$ 37,178,541
I Independent PowerProducer	3	754,513	$ 175,149	$ 23.21	$ 23.21	$ 175,149	258,690	$ 60,051.11	$ 11.5629	$ 87,244	$ 11.6506	$ 87,905
H Private St. Lights	528	449,276	$ 303,253	$ 67.50	$ 67.50	$ 303,253	852	$ 574.80	$ 56.7851	$ 255,122	$ 10.7129	$ 48,131
Sub-Total	49,716	1,105,326,321	$ 248,032,498	$ 22.44	$ 22.44	$ 248,032,498	22,233	$ 4,988.99	$ 10.5307	$ 116,398,391	$ 11.9091	$ 131,634,107
Government Service:												
S Small Non Demand	681	14,600,834	$ 3,918,224	$ 26.84	$ 26.84	$ 3,918,224	21,451	$ 5,756.45	$ 15.0093	$ 2,191,483	$ 11.8263	$ 1,726,741
K Small Demand	350	96,255,358	$ 24,294,525	$ 25.24	$ 25.24	$ 24,294,525	274,754	$ 69,346.88	$ 13.4231	$ 12,920,414	$ 11.8166	$ 11,374,111
L Large	46	78,363,536	$ 18,557,524	$ 24.30	$ 24.30	$ 18,557,524	1,663,090	$ 404,156.59	$ 12.6196	$ 9,636,793	$ 11.6819	$ 8,920,731
F Street Lighting (Agencies)	349	8,857,071	$ 5,298,922	$ 59.83	$ 59.83	$ 5,298,922	25,348	$ 15,165.05	$ 48.0091	$ 4,252,204	$ 11.8179	$ 1,046,717
Sub-Total	1,426	196,076,800	$ 52,069,195	$ 26.56	$ 26.56	$ 52,069,195	137,469	$ 36,505.63	$ 14.7906	$ 29,000,894	$ 11.7649	$ 23,068,300
	51,142	1,301,403,121	$ 300,101,693	$ 23.06	$ 23.06	$ 300,101,693	25,447	$ 41,494.62	$ 11.1725	$ 145,399,286	$ 11.8874	$ 154,702,407
U.S. Navy	1	316,700,734	$ 57,718,280	$ 18.22	$ 18.22	$ 57,718,280			$ 6.2158	$ 19,685,530	$ 12.0091	$ 38,032,750
TOTAL	51,143	1,618,103,855	$ 357,819,973	$ 22.11	$ 22.11	$ 357,819,973	31,639	$ 6,996.41	$ 10.2024	$ 165,084,816	$ 11.9112	$ 192,735,157

GPA-318

318Mar18

ENERGY ACCOUNT

FY 2018 Versus FY 2017

FOR INTERNAL USE ONLY

Gross Generation	March 2018		March 2017		Y T D 2018		Y T D 2017		MOVING TWELVE MONTHS	
Number of days in Period	31		31		182		182		365	
Peak demand	244		249		254		252		261	
Date	03/16/18		03/13/17		10/30/17		11/29/16		08/01/17	
	KWH	% change	KWH	% change	KWH	% change	KWH	% change	KWH	% change
Energy Account:										
Kilowatt hours GPA:										
Cabras 1 & 2	29,598,000		70,267,000		345,892,000		398,641,000		642,244,000	
Cabras No. 3	0		0		0		0		0	
Cabras No. 4	0		0		0		0		0	
MEC (ENRON) Piti 8 (IPP)	28,720,400		31,030,200		158,441,400		170,571,600		307,503,500	
MEC (ENRON) Piti 9 (IPP)	29,252,800		27,832,500		167,011,700		162,026,900		313,047,100	
TEMES Piti 7 (IPP)	6,719,199		705,294		12,248,444		4,628,278		54,601,535	
Tanguisson 2	0		0		0		0		0	
Tanguisson 1	0		0		0		0		0	
Diesels/CT's & Others:							0			
MDI 10MW	922,084		67,011		943,498		2,004,844		1,196,281	
NRG Solar Dandan	4,924,890		3,742,223		23,564,107		20,655,452		46,099,457	
Dededo CT #1	2,656,670		0		3,140,410		0		10,263,710	
Dededo CT #2	2,348,090		254,855		2,598,090		266,319		8,164,363	
Macheche CT	7,379,608		3,386,502		24,746,597		12,831,604		67,482,549	
Yigo CT (Leased)	4,725,702		808,173		18,238,529		13,922,042		45,692,434	
Tenjo	6,736,830		2,987,660		22,877,410		13,773,820		54,561,070	
Talofofo 10 MW	2,630,430		1,278,400		7,659,840		4,827,580		21,603,650	
Aggreko	17,666,134		5,867,886		82,062,205		59,477,824		196,030,920	
Wind Turbine*	72,277		3,146		252,491		270,470		369,216	
Orote	0		0		0		0		0	
Marbo	0		0		0		0		0	
	144,353,114		**148,230,849**		**869,676,721**		**863,897,734**		**1,768,859,784**	
Ratio to last year		97.38		105.66		100.67		**103.11**		**101.25**
Station use	4,423,014		6,060,640		32,259,682		34,961,635		63,193,044	
Ratio to Gross generation		3.06		4.09		3.71		4.05		**3.57**
Net send out	139,930,100		142,170,209		837,417,039		828,936,099		1,705,666,740	
Ratio to last year		98.42		104.36		101.02		**103.01**		**101.52**
KWH deliveries:										
Sales to Navy (@34.5kv)	**25,988,485**		**28,394,970**		**156,166,216**		**158,051,384**		**316,700,735**	
Ratio to last year		91.52		106.25		98.81		**100.05**		**99.54**
GPA-metered	**113,941,615**		**113,775,239**		**681,250,823**		**670,884,715**		**1,388,966,005**	
Ratio to last year		100.15		103.90		101.55		**103.73**		**101.98**
Power factor adj.	0		0		0		0		0	
Adjusted	113,941,615		113,775,239		681,250,823		670,884,715		1,388,966,005	
GPA KWH Accountability:										
Sales to civilian customers-accrual basis	**106,704,974**		**106,736,522**		**637,543,586**		**627,847,578**		**1,301,403,122**	
Ratio to last year		99.97		104.43		101.58		**103.60**		**101.83**
GPA use-KWH	319,483		260,662		1,837,556		1,526,598		3,455,195	
Unaccounted For	6,917,158		6,778,055		41,869,681		41,710,541		84,107,688	
Ratio to deliveries		6.07		5.96		6.15		6.22		6.06
Ratio to Gross Generation		4.79		4.57		4.81		4.83		4.75
Ratio to Net Send Out		4.94		4.77		5.00		5.03		4.93

CCU Regular Meeting May 22, 2018 - NEW BUSINESS

GPA-317Mar18

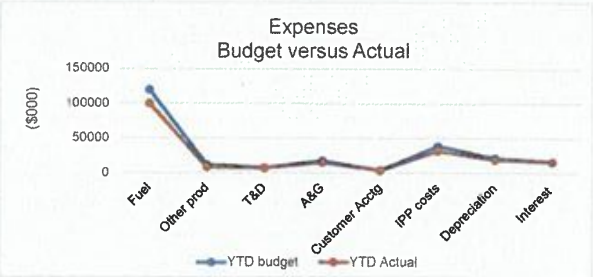
Guam Power Authority
Fuel Consumption
FY 2018

Description	March 2018 BARRELS	March 2018 AMOUNT	YEAR-TO-DATE BARRELS	YEAR-TO-DATE AMOUNT	MOVING 12 MONTHS BARREL S	MOVING 12 MONTHS AMOUNT
FUEL FURNISHED:						
NAVY:						
Diesel	0	0	0	0	0	0
Low Sulfur	0	0	0	0	0	0
	0	**0**	**0**	**0**	**0**	**0**
GPA:						
RFO	118,172	$7,804,565	927,314	$ 56,891,588	1,474,756	$ 88,132,641
Diesel	107,288	$9,276,701	346,698	$ 28,637,528	930,645	$ 70,892,702
Low Sulfur	8,416	$501,446	79,989	$ 4,885,758	436,689	$ 25,921,713
Deferred Fuel Costs	0	-$37,624	0	$ 2,322,779	0	$ (9,337,692)
Fuel Adjustments	0	$0		$ (19,006)	0	$ (222,386)
Fuel Handling Costs	0	$1,640,720	0	$ 7,609,395	0	$ 17,353,815
	233,876	**$19,185,808**	**1,354,002**	**$ 100,328,043**	**2,842,089**	**$ 192,740,793**
IWPS:						
GPA RFO	118,172	$7,804,565	927,314	$ 56,891,588	1,474,756	$ 88,132,641
Diesel	107,288	$9,276,701	346,698	$ 28,637,528	930,645	$ 70,892,702
Low Sulfur	8,416	$501,446	79,989	$ 4,885,758	436,689	$ 25,921,713
Deferred Fuel Costs	0	-$37,624	0	$ 2,322,779	0	$ (9,337,692)
Fuel Variance	0	$0	0	$ (19,006)		$ (222,386)
Fuel Handling Costs	0	$1,640,720	0	$ 7,609,395	0	$ 17,353,815
	233,876	**$19,185,808**	**1,354,002**	**$ 100,328,043**	**2,842,089**	**$ 192,740,793**
AVERAGE COST/Bbl.						
GPA RFO		**$66.04**		**$61.35**		**$59.76**
Diesel		**$86.47**		**$82.60**		**$76.18**
Low Sulfur		**$59.58**		**$61.08**		**$59.36**
AS BURNED						
Cabras 1 & 2						
RFO	47,543	$ 3,133,609	520,953	$ 31,946,172	909,448	$ 54,120,417
Low Sulfur	1,480	$ 87,507	47,489	$ 2,900,518	167,766	$ 9,996,103
Diesel	691	$ 53,308	1,056	$ 77,826	2,938	$ 204,952
	49,714	$ 3,274,423	569,498	$ 34,924,516	1,080,152	$ 64,321,471
Cabras 3 & 4						
RFO	0	$ -	0	$ -	0	$ -
Low Sulfur	0	$ -	0	$ -	0	$ -
Diesel	0	$ -	0	$ -	0	$ -
	0	$ -	0	$ -	0	$ -
MEC (Piti Units 8&9)						
RFO	70,629	$ 4,670,955	406,361	$ 24,945,416	565,308	$ 34,012,225
Low Sulfur	6,936	$ 413,940	32,501	$ 1,985,241	268,923	$ 15,925,610
Diesel	0	$ -	38	$ 2,127	77	$ 4,322
	77,565	$ 5,084,895	438,899	$ 26,932,784	834,308	$ 49,942,156
Diesel & CT's - GPA:						
MDI Dsl	1,485	$ 103,390	1,516	$ 105,403	1,922	$ 132,830
Macheche CT	15,341	$ 1,339,742	53,656	$ 4,384,712	146,537	$ 11,133,197
Yigo CT	9,681	$ 837,443	37,689	$ 3,113,282	94,277	$ 7,196,104
Talofofo 10 MW	4,466	$ 390,983	13,149	$ 1,119,798	36,923	$ 2,832,966
Aggreko	32,891	$ 2,877,595	151,111	$ 12,459,846	357,742	$ 27,289,778
Tenjo	11,732	$ 1,080,977	39,419	$ 3,403,286	94,726	$ 7,500,110
TEMES (IPP)	16,430	$ 1,394,788	31,771	$ 2,553,053	138,637	$ 10,296,883
GWA Generators	8	$ 901	291	$ 34,196	684	$ 80,494
	106,598	$ 9,223,393	345,604	$ 28,557,575	927,629	$ 70,683,428
Deferred Fuel Costs	0	$ (37,624)		$ 2,322,779		$ (9,337,692)
Adjustment		$ -		$ (19,006)		$ (222,386)
Fuel Handling Costs	0	$ 1,640,720		$ 7,609,395		$ 17,353,815
TOTAL	**233,877**	**$ 19,185,807**	**1,354,002**	**$ 100,328,043**	**2,842,089**	**$ 192,740,793**

Statement of operations
Comparison-Budget versus Actual
For the month and year to date ended March 31, 2018

	Budget	Actual March-18	Variance	YTD Budget	YTD Actual	Variance
KwH Sales-Civilian	106,019	106,705	-686	627,886	637,543	-9,657
Non-fuel yield	$ 0.105881	$ 0.113106	$ (0.007226)	$ 0.111948	$ 0.112196	$ (0.000248)
KwH Sales-Navy	26,568	25,988	580	157,055	156,166	889
Non-fuel yield	$ 0.061774	$ 0.065646	$ (0.003872)	$ 0.061774	$ 0.062254	$ (0.000480)
Operating revenue						
Civilian sales	11,892	12,069	(177)	70,290	71,530	(1,240)
Oil	20,370	19,180	1,190	120,592	100,322	20,270
Navy	1,641	1,706	(65)	9,702	9,722	(20)
Other income	169	180	(10)	1,015	1,091	(76)
	34,073	33,135	938	201,600	182,665	18,935
Bad debts expense	87	87	0	520	519	0
Total operating revenues	33,986	33,048	938	201,080	182,146	18,935
Operating expenses:						
Production fuel	20,370	19,186	1,184	120,592	100,328	20,264
O & M expenses:						
Other production	1,868	1,498	370	11,473	7,860	3,613
Transmission distribution	1,150	1,094	57	7,029	6,481	548
Administrative expense	2,398	2,490	(92)	17,610	14,586	3,024
Customer accounting	588	470	118	2,633	2,521	112
	6,004	5,551	453	38,745	31,448	7,296
IPP costs	1,383	1,401	(18)	9,055	9,123	(68)
Depreciation	3,635	3,119	516	21,809	19,252	2,558
	31,392	29,257	2,135	190,202	160,151	30,051
Operating income	2,594	3,791	(1,197)	10,879	21,995	(11,116)
Other revenue (expenses):						
Investment income	99	(233)	332	592	1,227	(635)
Interest expense	(2,654)	(2,664)	10	(15,933)	(16,147)	214
AFUDC	61	199	(138)	365	1,417	(1,052)
Bond issuance costs/Other expenses	135	52	83	808	(2,337)	3,145
Net income before capital contribution	234	1,144	(911)	(3,290)	6,155	(9,445)
Grants from the U.S. Government	-	4	(4)	-	79	(79)
Increase (decrease) in net assets	234	1,148	(915)	(3,290)	6,233	(9,524)





Guam Power Authority
Debt service coverage
March 31, 2018

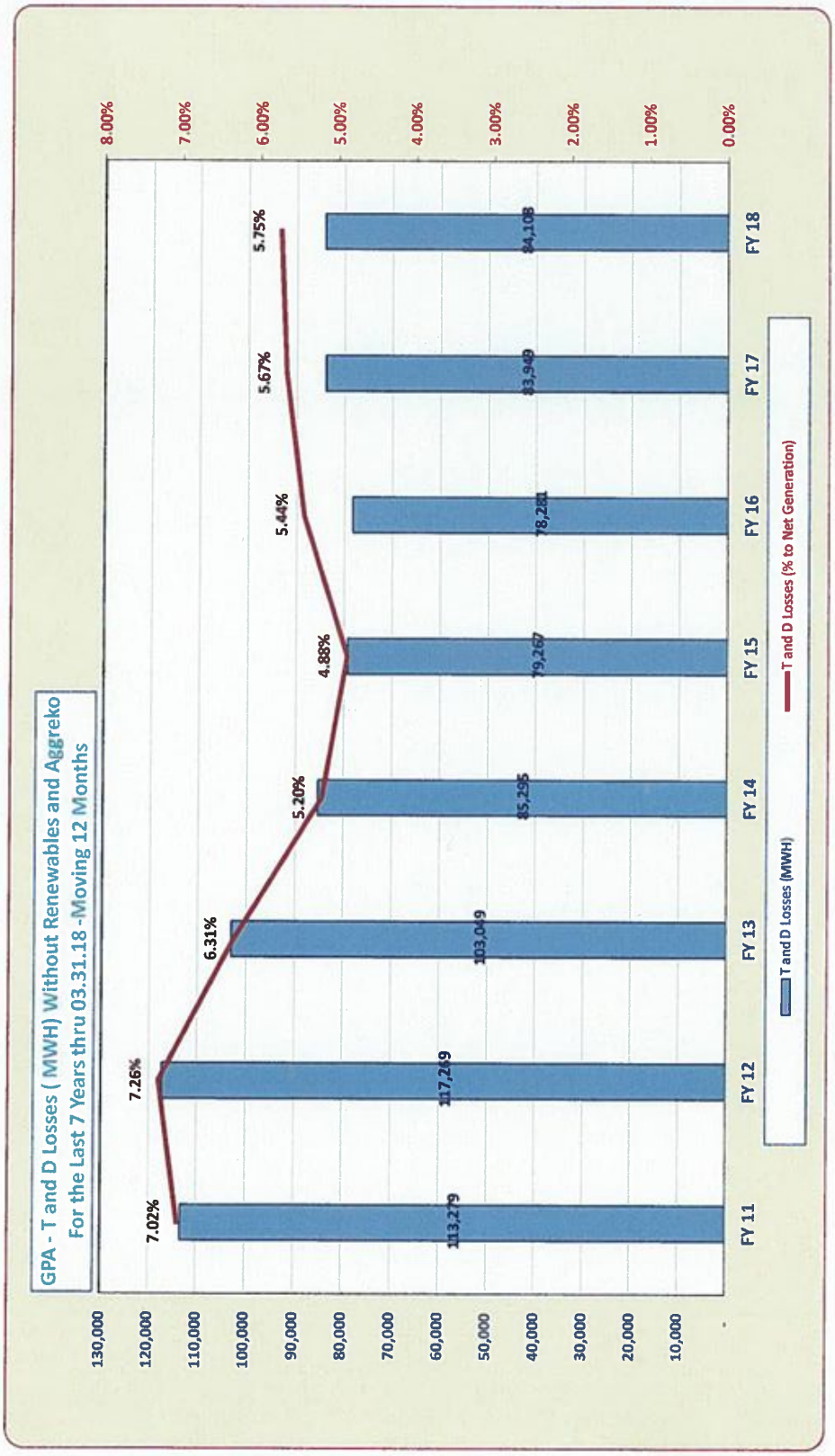
	2014	2015	Restated 2016	2017	YTD 2018
Funds Available for Debt Service					
Earnings from Operations	$40,895	$48,758	$37,981	$36,522	$21,995
Interest Income	$333	$368	$1,227	($32)	$1,004
Depreciation Expense	36,989	41,766	44,240	44,292	19,252
Balance Available for Debt Service	$78,217	$90,892	$83,448	$80,782	$42,251
IPP - Capital Costs					
Principal	$13,064	$18,144	$14,819	$21,263	$11,918
Interest	10,020	8,478	5,970	5,137	1,581
Total IPP Payments	$23,084	$26,622	$20,789	$26,400	$13,499
Bond Debt Service					
Principal (1993 & 1999 Revenue Bond)	$0	$0	$0	$0	$0
Interest (1993 & 1999 Revenue Bond)	0	0	0	0	0
Principal and Interest (2010 Subordinate Bond)	15,193	9,605	0	0	0
Principal and Interest (2010 Senior TE Bond)	7,999	7,999	7,999	7,999	2,000
Principal and Interest (2012 Senior TE Bond)	17,455	17,096	17,098	17,449	8,543
Principal and Interest (2014 Senior TE Bond)		0	10	5,084	2,544
Principal and Interest (2017 Senior TE Bond)					2,098
Total	$40,647	$34,700	$25,107	$30,532	$15,185
Debt Service Coverage (DSC) Calculation					
Existing DSC Methodology (Senior)	2.17 x	2.56 x	2.50 x	1.78 x	1.89
Existing DSC Methodology (Senior+Subordinate)	1.36 x	1.85 x	2.50 x	1.78 x	1.89
Bond Covenant DSC	1.92 x	2.62 x	3.32 x	2.65 x	2.78
Debt Service Coverage Requirements					
Existing Ratemaking DSC Target	1.75 x	1.75 x	1.75 x	1.75 x	1.75
Minimum Bond Covenant Requirement (Senior Bond)	1.30 x	1.30 x	1.30 x	1.30 x	1.30
Minimum Bond Covenant Requirement (Subordinate I	1.20 x	1.20 x	1.20 x	1.20 x	1.20

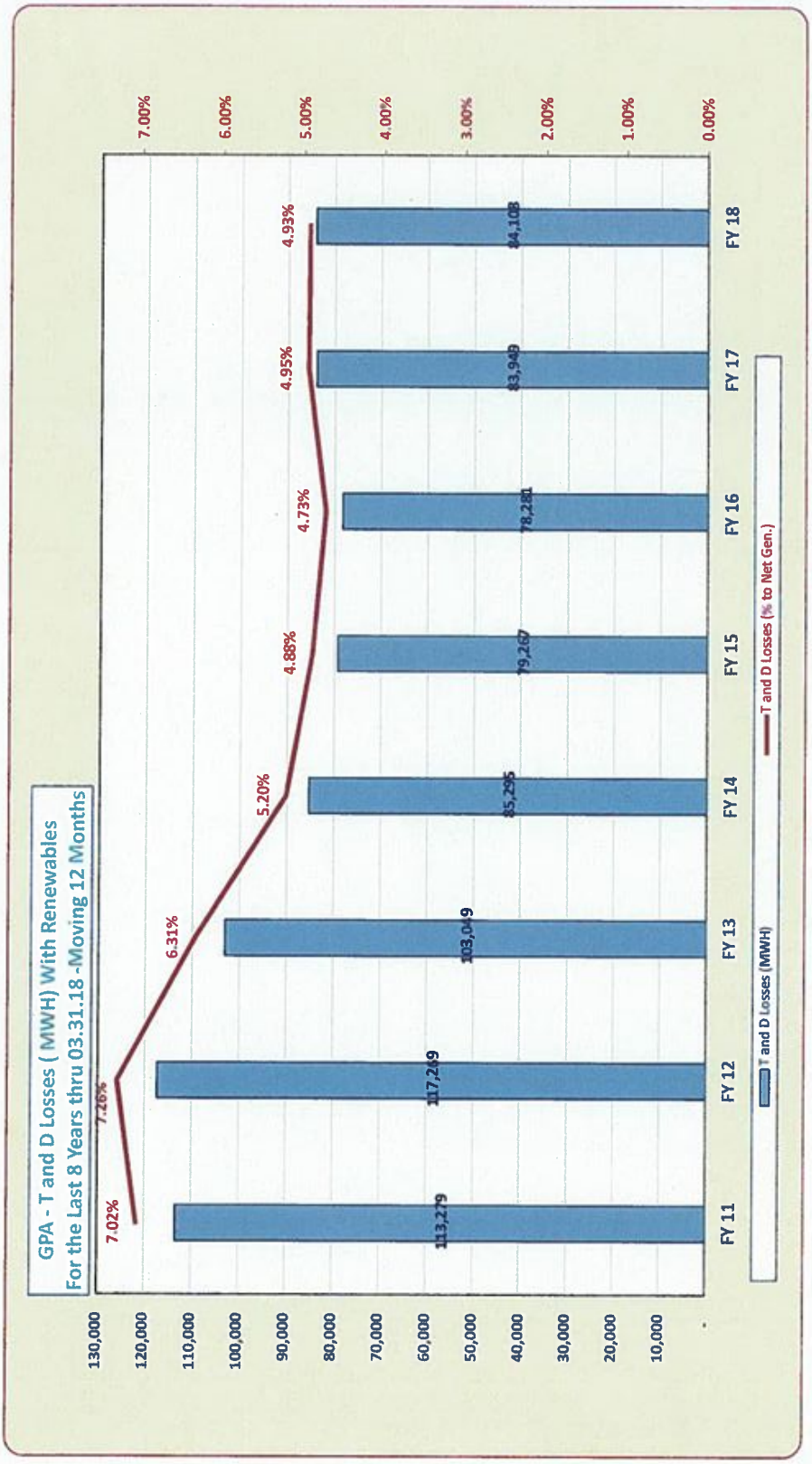
Notes:
(1) Source: Guam Power Authority, 2014 - 2017 Audited Financial Statements
(2) Interest income is net of interest earnings in the Construction Fund and the amortization of deferred credit.
(3) Existing DSC Methodology (Rating Agency Method):
(Operating Earnings + Depreciation Expense - IPP Principal & Interest Payments)/
(Senior and Subordinate Bond Principal & Interest Payments)
(4) Bond Covenant DSC Methodology: (Operating Earnings + Depreciation Expense)/
(Senior and Subordinate Bond Principal & Interest Payments)

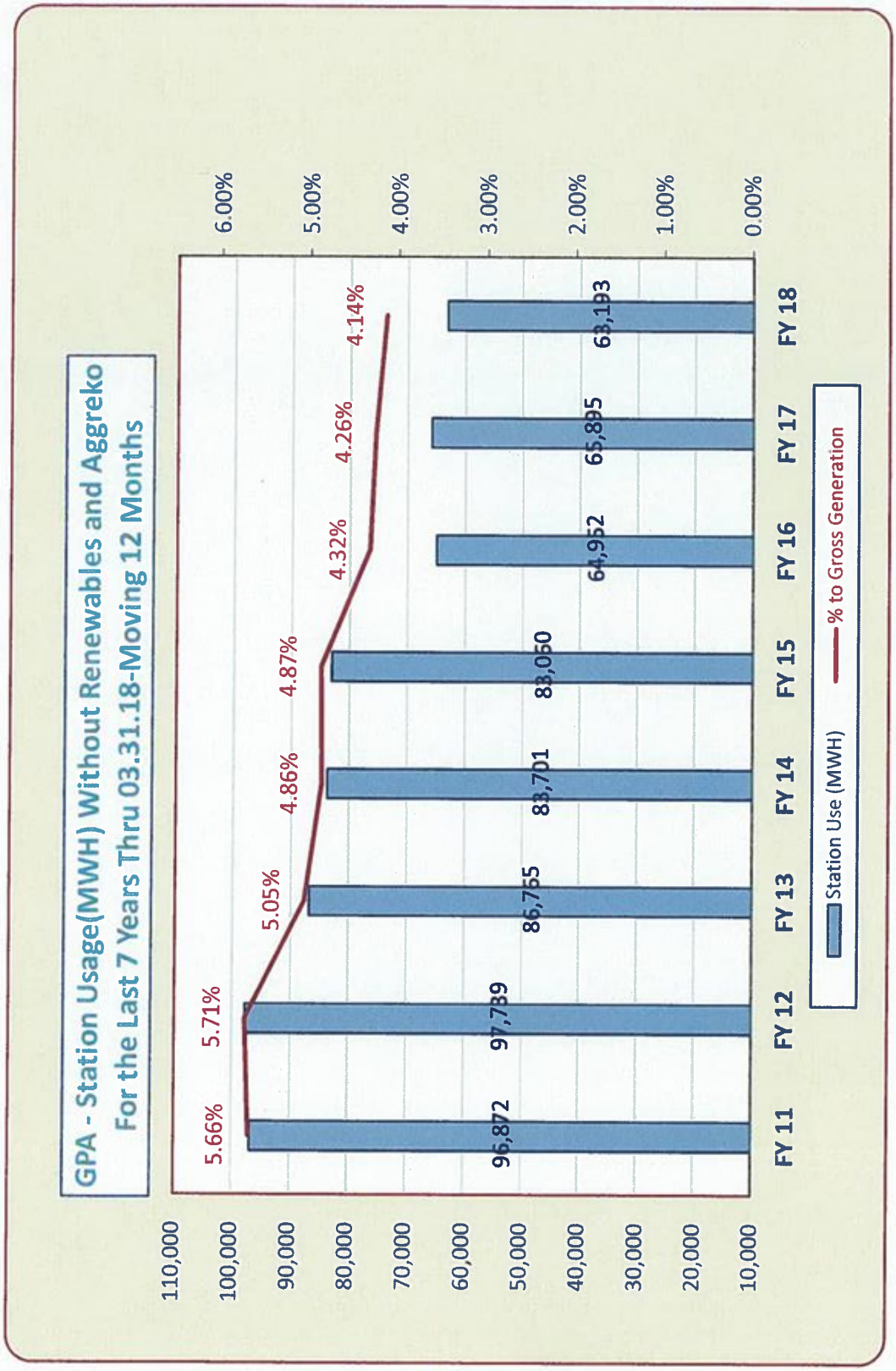
REVENUES-ACTUAL VS PROJECTIONS

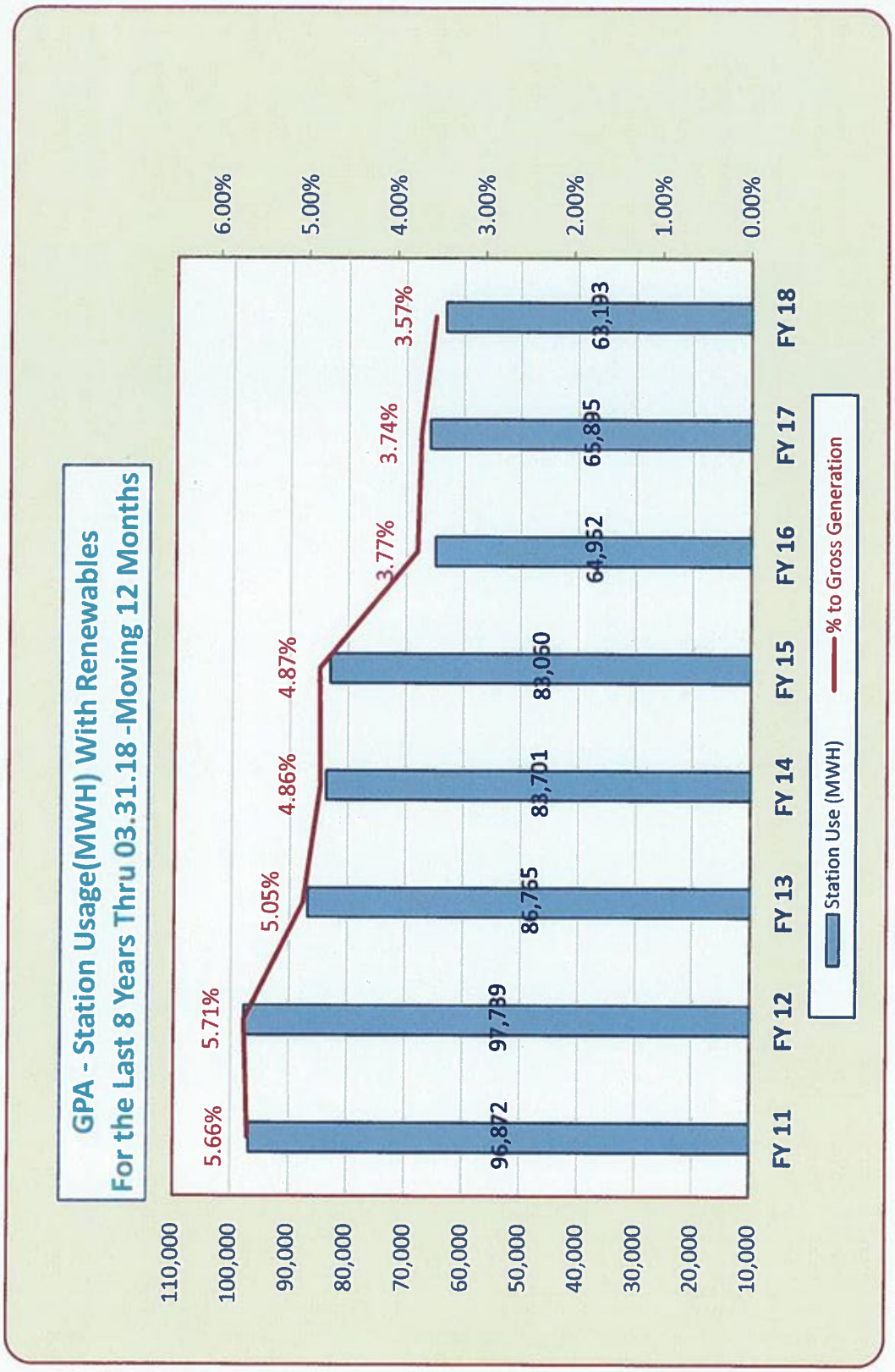
	MONTHLY - MARCH 2018				YTD THRU 03/31/2018			
	PROJECTIONS	ACTUAL	VARIANCE	% VARIANCE	PROJECTIONS	ACTUAL	VARIANCE	% VARIANCE
KWH								
Residential	40,619,329	41,541,824	922,495	2.27%	239,902,366	248,796,200	8,893,834	3.71%
Small General-Non-Demand	7,196,101	6,976,607	(219,494)	-3.05%	41,198,949	41,058,895	(140,054)	-0.34%
Small General-Demand	15,558,703	15,917,309	358,605	2.30%	93,193,665	93,074,431	(119,235)	-0.13%
Large	26,164,226	26,155,199	(9,026)	-0.03%	158,015,458	156,408,481	(1,606,977)	-1.02%
Independent Power Producers	32,729	28,536	(4,193)	-12.81%	197,661	310,730	113,069	57.20%
Private St. Lites	56,106	32,791	(23,315)	-41.56%	331,680	201,578	(130,102)	-39.23%
Sub-total	**89,627,194**	**90,652,265**	**1,025,071**	**1.14%**	**532,839,779**	**538,850,315**	**7,010,536**	**1.32%**
Government								
Small_Non Demand	1,099,547	1,193,794	94,247	8.57%	6,473,828	7,340,385	866,557	13.39%
Small-Demand	8,279,422	7,889,205	(390,216)	-4.71%	47,609,096	47,815,506	206,410	0.43%
Large	6,147,788	6,226,210	78,423	1.28%	36,062,522	38,228,791	2,166,269	6.01%
Public St. Lites	865,032	743,499	(121,533)	-14.05%	4,901,203	4,308,590	(592,613)	-12.09%
Sub-total	**16,391,788**	**16,052,709**	**(339,079)**	**-2.07%**	**95,046,648**	**97,693,272**	**2,646,624**	**2.78%**
Total-Civilian	**106,018,982**	**106,704,974**	**685,992**	**0.65%**	**627,886,427**	**637,543,587**	**9,657,160**	**1.54%**
USN	26,568,285	25,988,485	(579,800)	-2.18%	157,055,887	156,166,216	(889,672)	-0.57%
Grand Total	**132,587,268**	**132,693,459**	**106,192**	**0.08%**	**784,942,314**	**793,709,803**	**8,767,488**	**1.12%**
	-				-	-		
Non-Oil Yield								
Residential	0.096203	0.097178	0.000975	1.01%	0.096203	0.096268	0.000065	0.07%
Small General-Non-Demand	0.136364	0.137700	0.001336	0.98%	0.136364	0.136795	0.000430	0.32%
Small General-Demand	0.119423	0.120839	0.001416	1.19%	0.119423	0.120073	0.000650	0.54%
Large	0.103705	0.104462	0.000758	0.73%	0.103705	0.103637	(0.000067)	-0.07%
Independent Power Producers	0.117983	0.117182	(0.000801)	0.00%	0.117983	0.107689	(0.010294)	0.00%
Private St. Lites	0.454278	0.639091	0.184813	40.68%	0.454278	0.631364	0.177086	38.98%
Sub-total	**0.105881**	**0.106755**	**0.000875**	**0.83%**	**0.105825**	**0.105796**	**(0.000029)**	**-0.03%**
Government	-				-			
Small_Non Demand	0.152255	0.151396	(0.000858)	-0.56%	0.152255	0.150002	(0.002253)	-1.48%
Small-Demand	0.135082	0.134762	(0.000320)	-0.24%	0.135082	0.134136	(0.000946)	-0.70%
Large	0.128102	0.128692	0.000590	0.46%	0.128102	0.126724	(0.001378)	-1.08%
Public St. Lites	0.380746	0.465686	0.084940	22.31%	0.380746	0.477187	0.096441	25.33%
Sub-total	**0.146580**	**0.148972**	**0.002391**	**1.63%**	**0.146271**	**0.147557**	**0.001286**	**0.88%**
Total-Civilian	**0.112173**	**0.113106**	**0.000933**	**0.83%**	**0.111948**	**0.112195**	**0.000247**	**0.22%**
USN	0.061774	0.065689	0.003895	6.31%	0.061774	0.062257	0.000483	0.78%
Grand Total	**0.102074**	**0.103816**	**0.001742**	**1.71%**	**0.101909**	**0.102370**	**0.000461**	**0.45%**
Non-Oil Revenues								
Residential	3,907,717	4,036,961	129,244	3.31%	23,079,421	23,951,125	871,704	3.78%
Small General-Non-Demand	981,291	960,680	(20,611)	-2.10%	5,618,064	5,616,639	(1,425)	-0.03%
Small General-Demand	1,858,089	1,923,453	65,364	3.52%	11,129,480	11,175,765	46,285	0.42%
Large	2,713,351	2,732,228	18,877	0.70%	16,386,936	16,209,732	(177,204)	-1.08%
Independent Power Producers	3,861	3,344	(518)	-13.40%	23,321	33,462	10,142	43.49%
Private St. Lites	25,488	20,956	(4,531)	-17.78%	150,675	127,269	(23,406)	-15.53%
Sub-total	**9,489,778**	**9,677,603**	**187,825**	**1.98%**	**56,387,896**	**57,113,992**	**726,096**	**1.29%**
Government								
Small_Non Demand	167,411	180,736	13,325	7.96%	985,670	1,101,071	115,402	11.71%
Small-Demand	1,118,399	1,063,161	(55,238)	-4.94%	6,431,122	6,413,759	(17,363)	-0.27%
Large	787,544	801,265	13,721	1.74%	4,619,683	4,844,492	224,809	4.87%
Public St. Lites	329,358	348,237	18,879	5.12%	1,866,114	2,056,004	189,889	10.18%
Sub-total	**2,402,712**	**2,391,399**	**(11,313)**	**-0.47%**	**13,902,589**	**14,415,326**	**512,737**	**3.69%**
Total-Civilian	**11,892,490**	**12,069,002**	**176,512**	**1.48%**	**70,290,484**	**71,529,318**	**1,238,834**	**1.76%**
USN	1,641,228	1,706,643	65,415	3.99%	9,701,964	9,722,486	20,522	0.21%
Grand Total	**13,533,718**	**13,775,645**	**241,927**	**1.79%**	**79,992,449**	**81,251,804**	**1,259,356**	**1.57%**
% of Total Revenues	39.92%	41.80%			39.88%	44.75%		
Oil Revenues								
Residential	6,240,439	6,117,698	(122,741)	-1.97%	36,856,744	32,243,564	(4,613,180)	-12.52%
Small General-Non-Demand	1,105,553	1,027,417	(78,136)	-7.07%	6,329,488	5,330,406	(999,082)	-15.78%
Small General-Demand	2,390,319	2,343,297	(47,022)	-1.97%	14,317,554	12,038,910	(2,278,643)	-15.92%
Large	4,019,669	3,833,455	(186,214)	-4.63%	24,276,273	19,867,884	(4,408,389)	-18.16%
Independent Power Producers	5,028	4,062	(966)	-19.21%	30,387	36,988	6,621	21.80%
Private St. Lites	8,620	4,829	(3,791)	-43.98%	50,957	25,656	(25,301)	-49.65%
Sub-total	**13,769,629**	**13,330,758**	**(438,870)**	**-3.19%**	**81,861,382**	**69,543,407**	**(12,317,975)**	**-15.05%**
Government								
Small_Non Demand	168,926	175,805	6,879	4.07%	994,589	932,488	(62,101)	-6.24%
Small-Demand	1,271,986	1,161,812	(110,175)	-8.66%	7,314,293	6,079,849	(1,234,445)	-16.88%
Large	944,499	906,004	(38,495)	-4.08%	5,540,367	4,800,083	(740,284)	-13.36%
Public St. Lites	132,897	109,492	(23,405)	-17.61%	752,983	548,956	(204,027)	-27.10%
Sub-total	**2,518,308**	**2,353,113**	**(165,195)**	**-6.56%**	**14,602,232**	**12,361,375**	**(2,240,857)**	**-15.35%**
Total-Civilian	**16,287,936**	**15,683,871**	**(604,065)**	**-3.71%**	**96,463,614**	**81,904,782**	**(14,558,832)**	**-15.09%**
USN	4,081,746	3,496,300	(585,445)	-14.34%	24,128,852	18,417,623	(5,711,229)	-23.67%
Grand Total	**20,369,682**	**19,180,172**	**(1,189,511)**	**-5.84%**	**120,592,466**	**100,322,406**	**(20,270,060)**	**-16.81%**
% of Total Revenues	60.08%	58.20%			60.12%	55.25%		
Grand Total								
Residential	10,148,157	10,154,660	6,503	0.06%	59,936,165	56,194,689	(3,741,475)	-6.24%
Small General-Non-Demand	2,086,844	1,988,097	(98,747)	-4.73%	11,947,551	10,947,044	(1,000,507)	-8.37%
Small General-Demand	4,248,388	4,266,730	18,342	0.43%	25,447,034	23,214,676	(2,232,358)	-8.77%
Large	6,733,021	6,565,683	(167,338)	-2.49%	40,663,208	36,077,615	(4,585,593)	-11.28%
Independent Power Producers	8,890	7,406	(1,483)	-16.69%	53,688	70,450	16,762	31.22%
Private St. Lites	34,108	25,785	(8,322)	-24.40%	201,632	152,925	(48,706)	-24.16%
Sub-total	**23,259,407**	**23,008,362**	**(251,045)**	**-1.08%**	**138,249,278**	**126,657,399**	**(11,591,878)**	**-8.38%**
Government					-			
Small_Non Demand	336,337	356,541	20,204	6.01%	1,980,258	2,033,559	53,300	2.69%
Small-Demand	2,390,385	2,224,973	(165,412)	-6.92%	13,745,415	12,493,608	(1,251,808)	-9.11%
Large	1,732,043	1,707,269	(24,774)	-1.43%	10,160,050	9,644,575	(515,474)	-5.07%
Public St. Lites	462,255	455,729	(6,526)	-1.41%	2,619,097	2,604,959	(14,138)	-0.54%
Sub-total	**4,921,020**	**4,744,512**	**(176,508)**	**-3.59%**	**28,504,821**	**26,776,701**	**(1,728,120)**	**-6.06%**
Total-Civilian	**28,180,426**	**27,752,874**	**(427,553)**	**-1.52%**	**166,754,098**	**153,434,100**	**(13,319,998)**	**-7.99%**
USN	5,722,974	5,202,943	(520,031)	-9.09%	33,830,816	28,140,109	(5,690,707)	-16.82%
Grand Total	**33,903,401**	**32,955,817**	**(947,584)**	**-2.79%**	**200,584,914**	**181,574,210**	**(19,010,705)**	**-9.48%**
	-	-	-					

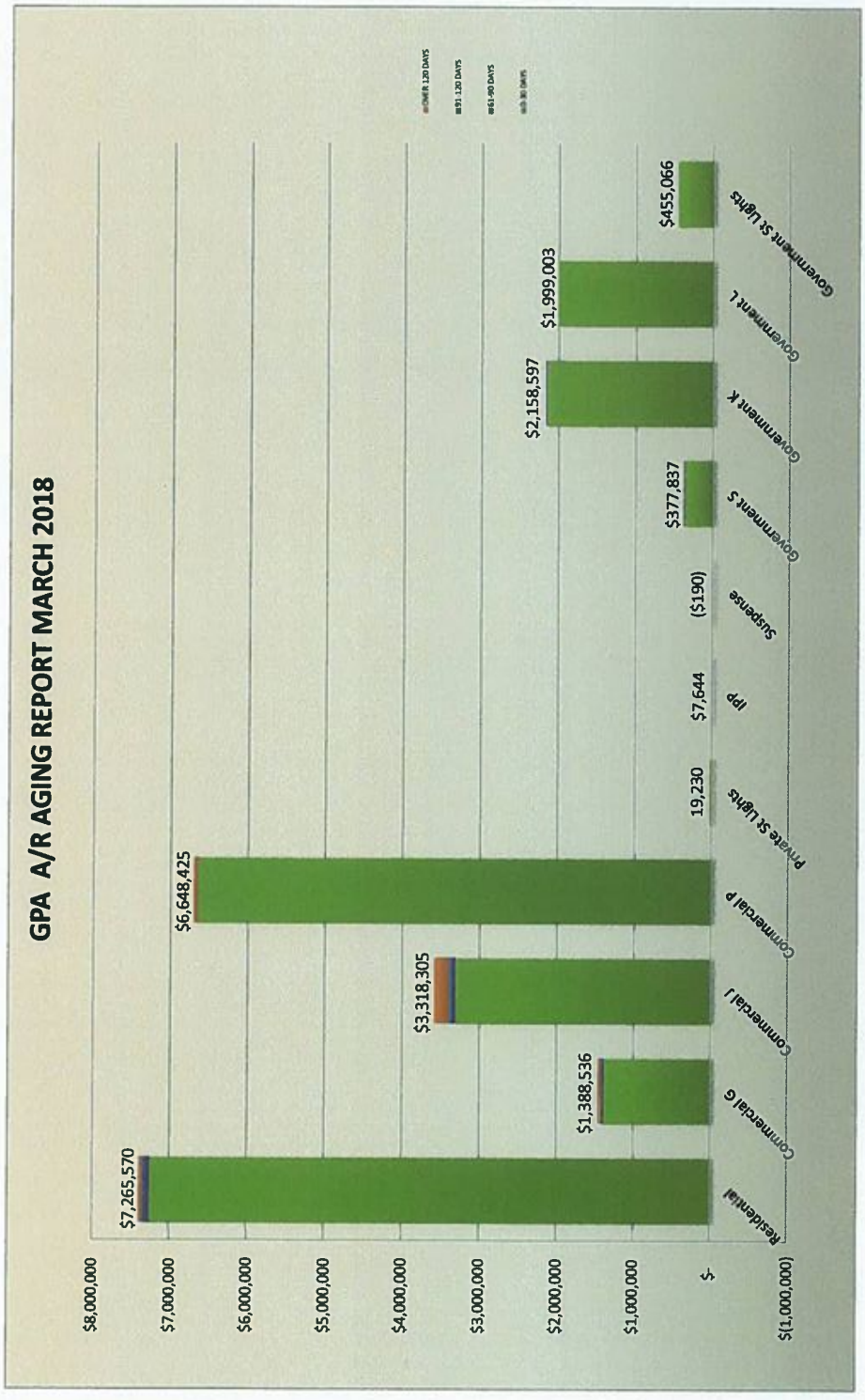
	YTD REVENUES - CURRENT YEAR VS PRIOR YEAR				MTD REVENUES - CURRENT YEAR VS PRIOR YEAR			
	ACTUALS - 6 MONTHS ENDED MARCH 31				ACTUALS - MONTH ENDED MARCH 31			
	2018	2017	VARIANCE	% VARIANCE	2018	2017	VARIANCE	% VARIANCE
KWH								
Residential	248,796,200	240,570,451	8,225,749	3.42%	41,541,824	40,911,781	630,043	1.54%
Small General-Non-Demand	41,058,895	40,594,512	464,383	1.14%	6,976,607	6,767,505	209,102	3.09%
Small General-Demand	93,074,431	93,306,665	(232,234)	-0.25%	15,917,309	16,300,307	(382,998)	-2.35%
Large	156,408,481	155,603,304	805,177	0.52%	26,155,199	26,173,462	(18,263)	-0.07%
Independent Power Producers	310,730	518,040	(207,310)	-40.02%	28,536	83,841	(55,306)	-65.96%
Private St. Lites	201,578	244,710	(43,131)	-17.63%	32,791	34,097	(1,306)	-3.83%
Sub-total	**539,850,315**	**530,837,682**	**9,012,633**	**1.70%**	**90,652,265**	**90,270,993**	**381,272**	**0.42%**
Government								
Small_Non Demand	7,340,385	6,641,796	698,589	10.52%	1,193,794	1,123,675	70,119	6.24%
Small-Demand	47,815,508	48,438,749	(623,243)	-1.29%	7,889,205	8,171,598	(282,393)	-3.46%
Large	38,228,791	36,763,223	1,465,568	3.99%	6,226,210	6,340,287	(114,077)	-1.80%
Public St. Lites	4,308,590	4,966,126	(657,536)	-13.24%	743,499	829,968	(86,469)	-10.42%
Sub-total	**97,693,272**	**96,809,894**	**883,378**	**0.91%**	**16,052,709**	**16,465,529**	**(412,820)**	**-2.51%**
Total-Civilian	**637,543,587**	**627,647,576**	**9,896,011**	**1.58%**	**106,704,974**	**106,736,522**	**(31,548)**	**-0.03%**
USN	156,166,216	158,051,383	(1,885,167)	-1.19%	25,988,485	28,394,970	(2,406,485)	-8.48%
Grand Total	**793,709,803**	**785,698,959**	**8,010,844**	**1.02%**	**132,693,459**	**135,131,492**	**(2,438,033)**	**-1.80%**
Non-Oil Yield								
Residential	0.096268	0.096793	-0.000525	-0.54%	0.097178	0.096741	0.000438	0.45%
Small General-Non-Demand	0.136795	0.137734	-0.000939	-0.68%	0.137700	0.138446	-0.000746	-0.54%
Small General-Demand	0.120073	0.120794	-0.000720	-0.60%	0.120839	0.120398	0.000441	0.37%
Large	0.103637	0.102927	0.000710	0.69%	0.104462	0.100708	0.003754	3.73%
Independent Power Producers	0.000000	0.112478	-0.112478	-100.00%	0.117182	0.106449	0.010733	10.08%
Private St. Lites	0.631364	0.548446	0.082918	15.12%	0.639091	0.628506	0.010585	1.68%
Sub-total	**0.105796**	**0.106164**	**-0.000368**	**-0.35%**	**0.106755**	**0.105499**	**0.001256**	**1.19%**
Government								
Small_Non Demand	0.150002	0.152667	-0.002665	-1.75%	0.151396	0.152342	-0.000946	-0.62%
Small-Demand	0.134136	0.135159	-0.001024	-0.76%	0.134782	0.134397	0.000385	0.27%
Large	0.126724	0.126570	0.000154	0.12%	0.128692	0.125590	0.003102	2.47%
Public St. Lites	0.477187	0.460370	0.016817	3.65%	0.465686	0.433924	0.031762	7.32%
Sub-total	**0.147557**	**0.149781**	**-0.002224**	**-1.48%**	**0.148972**	**0.147328**	**0.001643**	**1.12%**
Total-Civilian	**0.112195**	**0.112891**	**-0.000696**	**-0.62%**	**0.113106**	**0.111952**	**0.001154**	**1.03%**
USN	0.062257	0.063020	-0.000762	-1.21%	0.065669	0.076548	-0.010878	-14.21%
Grand Total	**0.102370**	**0.102859**	**-0.000490**	**-0.48%**	**0.103816**	**0.104512**	**-0.000697**	**-0.67%**
Non-Oil Revenues								
Residential	23,951,125	23,285,429	665,696	2.86%	4,036,961	3,957,834	79,127	2.00%
Small General-Non-Demand	5,616,839	5,591,231	25,408	0.45%	960,680	936,936	23,744	2.53%
Small General-Demand	11,175,765	11,270,877	(95,112)	-0.84%	1,923,433	1,962,520	(39,087)	-1.99%
Large	16,209,732	16,015,737	193,995	1.21%	2,732,228	2,635,873	96,355	3.66%
Independent Power Producers	33,462	58,268	(24,806)	-42.57%	3,344	8,925	(5,581)	-62.53%
Private St. Lites	127,269	134,210	(6,941)	-5.17%	20,956	21,430	(473)	-2.21%
Sub-total	**57,113,992**	**56,355,751**	**758,241**	**1.35%**	**9,677,603**	**9,523,517**	**154,086**	**1.62%**
Government								
Small_Non Demand	1,101,071	1,013,984	87,088	8.59%	180,736	171,183	9,553	5.58%
Small-Demand	6,413,759	6,546,948	(133,189)	-2.03%	1,063,161	1,098,235	(35,074)	-3.19%
Large	4,844,492	4,653,113	191,379	4.11%	801,265	796,279	4,986	0.63%
Public St. Lites	2,056,004	2,286,254	(230,250)	-10.07%	346,237	360,143	(13,906)	-3.86%
Sub-total	**14,415,326**	**14,500,299**	**(84,973)**	**-0.59%**	**2,391,399**	**2,425,840**	**(34,441)**	**-1.42%**
Total-Civilian	**71,529,318**	**70,856,051**	**673,267**	**0.95%**	**12,069,002**	**11,949,357**	**119,645**	**1.00%**
USN	9,722,486	9,960,343	(237,857)	-2.39%	1,706,643	2,173,566	(466,923)	-21.48%
Grand Total	**81,251,804**	**80,816,394**	**435,410**	**0.54%**	**13,775,645**	**14,122,923**	**(347,278)**	**-2.46%**
% of Total Revenues								
Oil Revenues								
Residential	32,243,564	22,587,883	9,655,681	42.75%	6,117,698	4,297,823	1,819,875	42.34%
Small General-Non-Demand	5,330,406	3,817,706	1,512,700	39.62%	1,027,417	710,933	316,484	44.52%
Small General-Demand	12,038,910	8,748,761	3,290,150	37.61%	2,343,297	1,711,784	631,513	36.89%
Large	19,867,884	14,452,591	5,415,293	37.47%	3,833,455	2,734,412	1,099,043	40.19%
Independent Power Producers	36,988	48,064	(11,076)	-23.04%	4,062	8,526	(4,464)	-52.35%
Private St. Lites	25,656	22,420	3,236	14.43%	4,829	3,582	1,247	34.82%
Sub-total	**69,543,407**	**49,677,424**	**19,865,983**	**39.99%**	**13,330,758**	**9,467,060**	**3,863,698**	**40.81%**
Government								
Small_Non Demand	932,488	614,360	318,128	51.78%	175,805	118,043	57,762	48.93%
Small-Demand	6,079,849	4,482,213	1,597,636	35.64%	1,161,812	858,435	303,377	35.34%
Large	4,800,083	3,413,304	1,386,780	40.63%	906,004	658,411	247,592	37.60%
Public St. Lites	548,956	458,479	90,476	19.73%	109,492	87,189	22,303	25.58%
Sub-total	**12,361,375**	**8,968,355**	**3,393,020**	**37.83%**	**2,353,113**	**1,722,078**	**631,035**	**36.64%**
Total-Civilian	**81,904,782**	**58,645,779**	**23,259,004**	**39.66%**	**15,683,871**	**11,189,138**	**4,494,733**	**40.17%**
USN	18,417,623	15,366,119	3,051,504	19.86%	3,496,300	3,058,942	437,358	14.30%
Grand Total	**100,322,406**	**74,011,898**	**26,310,507**	**35.55%**	**19,180,172**	**14,248,081**	**4,932,091**	**34.62%**
% of Total Revenues								
Grand Total								
Residential	56,194,689	45,873,312	10,321,377	22.50%	10,154,660	8,255,658	1,899,002	23.00%
Small General-Non-Demand	10,947,044	9,408,937	1,538,107	16.35%	1,988,097	1,647,869	340,228	20.65%
Small General-Demand	23,214,676	20,019,638	3,195,038	15.96%	4,266,730	3,674,304	592,426	16.12%
Large	36,077,615	30,488,327	5,609,288	18.41%	6,565,683	5,370,285	1,195,398	22.26%
Independent Power Producers	70,450	106,332	(35,882)	-33.75%	7,406	17,451	(10,045)	-57.56%
Private St. Lites	152,925	156,630	(3,705)	-2.37%	25,785	25,012	774	3.09%
Sub-total	**126,657,399**	**106,033,175**	**20,624,224**	**19.45%**	**23,008,362**	**18,990,578**	**4,017,784**	**21.16%**
Government								
Small_Non Demand	2,033,559	1,628,343	405,216	24.89%	356,541	289,226	67,315	23.27%
Small-Demand	12,493,608	11,029,161	1,464,447	13.28%	2,224,973	1,956,670	268,303	13.71%
Large	9,644,575	8,066,417	1,578,158	19.56%	1,707,269	1,454,690	252,578	17.36%
Public St. Lites	2,604,959	2,744,733	(139,774)	-5.09%	455,729	447,332	8,397	1.88%
Sub-total	**26,776,701**	**23,468,654**	**3,308,047**	**14.10%**	**4,744,512**	**4,147,918**	**596,594**	**14.38%**
Total-Civilian	**153,434,100**	**129,501,829**	**23,932,271**	**18.48%**	**27,752,874**	**23,138,496**	**4,614,378**	**19.94%**
USN	28,140,109	25,326,463	2,813,647	11.11%	5,202,943	5,232,508	(29,564)	-0.57%
Grand Total	**181,574,210**	**154,828,292**	**26,745,918**	**17.27%**	**32,955,817**	**28,371,004**	**4,584,813**	**16.16%**


GPA - T and D Losses (MWH) Without Renewables and Aggreko
For the Last 7 Years thru 03.31.18 - Moving 12 Months
T and D Losses (MWH)
T and D Losses (% to Net Generation)
FY 11
FY 12
FY 13
FY 14
FY 15
FY 16
FY 17
FY 18
113,279
117,219
103,049
85,295
79,267
78,281
83,949
84,108
7.02%
7.26%
6.31%
5.20%
4.88%
5.44%
5.67%
5.75%
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
8.00%
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%


GPA - T and D Losses (MWH) With Renewables
For the Last 8 Years thru 03.31.18 -Moving 12 Months
T and D Losses (MWH)
T and D Losses (% to Net Gen.)
FY 11
FY 12
FY 13
FY 14
FY 15
FY 16
FY 17
FY 18
113,279
117,249
103,049
85,295
79,267
78,281
83,949
84,108
7.02%
7.26%
6.31%
5.20%
4.88%
4.73%
4.95%
4.93%
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%


GPA - Station Usage(MWH) Without Renewables and Aggreko
For the Last 7 Years Thru 03.31.18-Moving 12 Months
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
96,872
97,739
86,755
83,701
83,050
64,952
65,895
63,193
5.66%
5.71%
5.05%
4.86%
4.87%
4.32%
4.26%
4.14%
FY 11
FY 12
FY 13
FY 14
FY 15
FY 16
FY 17
FY 18
Station Use (MWH)
% to Gross Generation


GPA - Station Usage(MWH) With Renewables
For the Last 8 Years Thru 03.31.18 -Moving 12 Months
110,000
100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
96,872
97,739
86,755
83,701
83,050
64,952
65,895
63,193
5.66%
5.71%
5.05%
4.86%
4.87%
3.77%
3.74%
3.57%
FY 11
FY 12
FY 13
FY 14
FY 15
FY 16
FY 17
FY 18
Station Use (MWH)
% to Gross Generation


GPA A/R AGING REPORT MARCH 2018
$8,000,000
$7,000,000
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$-
$(1,000,000)
$7,265,570
$6,648,425
$3,318,305
$1,388,536
19,230
$7,644
($190)
$377,837
$2,158,597
$1,999,003
$455,066
Residential
Commercial G
Commercial J
Commercial P
Private St Lights
IPP
Suspense
Government S
Government K
Government L
Government St Lights

GUAM POWER AUTHORITY

GOVERNMENT ACCOUNTS RECEIVABLE

BILLING UP TO 04/30/2018 and Payment Applied as of 05/11/2018

Current (12/17 Billing due 01/31/18
30 days Arrears (11/17 due 12/15/17)
60 days and over Arrears (10/17 billing due 11/15/17)

CC&B ACCT NUMBER	DEPARTMENT	BALANCE 3/31/2018	CANCEL/REBILL/ SPEC CHARGE 4/30/2018	BILLING 4/30/2018	PAYMENT 4/30/2018	BALANCE 4/30/2018	
	Line Agencies						
0237100000	Dept. of Corrections	$ 78,962.97	$ -	$ 84,211.65	$ (78,962.97)	$ 84,211.65	
0437100000	Dept. of Parks & Rec.	$ 17,595.10	$ 125.00	$ 17,167.88	$ (17,595.10)	$ 17,292.88	
0537100000	Guam Fire Department	$ 16,345.53	$ -	$ 17,949.62	$ (16,345.53)	$ 17,949.62	
6995000000	DOA Supply Mgmt	$ 1,490.30	$ -	$ 1,661.53	$ (1,490.30)	$ 1,661.53	
7895000000	Dept. of Administration	$ 3,616.58	$ -	$ 3,738.09	$ (3,616.58)	$ 3,738.09	
1337100000	Nieves Flores Library	$ 9,753.22	$ -	$ 10,140.05	$ (9,753.22)	$ 10,140.05	
2206200000	General Services Agency	$ 262.27	$ -	$ 259.84	$ (262.27)	$ 259.84	
2237100000	DOA-Data Processing	$ 7,940.77	$ -	$ 8,499.94	$ (7,940.77)	$ 8,499.94	
2337100000	Dept. of PH&SS	$ 68,993.14	$ -	$ 72,161.11	$ (68,993.14)	$ 72,161.11	
3237100000	Dept. of Education	$ 1,043,552.69	$ 277.38	$ 1,126,728.21	$ (1,006,568.70)	$ 1,163,989.58	
3337100000	Guam Police Department	$ 36,200.15	$ -	$ 38,402.79	$ (36,200.15)	$ 38,402.79	
3569100000	Dept of Youth Affairs (Federal)	$ 963.21	$ (9.56)	$ 972.74	$ (963.21)	$ 963.18	
4437100000	Dept. of Youth Affair* (Local)	$ 11,309.39	$ -	$ 11,968.68	$ (11,309.39)	$ 11,968.68	
4737100000	Guam Environmental Protect	$ 6,421.34	$ -	$ 6,712.26	$ (6,421.34)	$ 6,712.26	
5437100000	Mental Health/Subst.	$ 40,358.46	$ -	$ 43,933.04	$ (40,358.46)	$ 43,933.04	
7200300000	Veteran Affairs	$ 839.65	$ -	$ 918.33	$ (839.65)	$ 918.33	
7437100000	Civil Defense (Military Affairs)	$ 29,802.12	$ -	$ 11,104.99	$ (29,802.12)	$ 11,104.99	
7463300000	Pacific Energy Resource Center	$ 657.22	$ -	$ 664.44	$ (657.22)	$ 664.44	
8137100000	Dept. of Agriculture	$ 10,125.19	$ -	$ 10,322.02	$ (10,125.19)	$ 10,322.02	
8337100000	DPW-FAC Adm Account	$ 23,551.99	$ -	$ 24,233.71	$ (23,551.99)	$ 24,233.71	
8437100000	Guam Visitors Bureau	$ 4,304.05	$ -	$ 4,717.98	$ (9,022.03)	$ -	
8446300000	Yona Senior Citizen Center	$ 831.98	$ -	$ 925.87	$ (831.98)	$ 925.87	
9437100000	Dept of Chamorro Affairs/Chamorro Village	$ 4,243.90	$ -	$ 4,387.01	$ (4,243.90)	$ 4,387.01	
5247210000	Mayors Council	$ 2,486.43	$ -	$ 2,506.16	$ (2,486.43)	$ 2,506.16	
6293410000	Office of the Governor	$ 21,948.85	$ -	$ 22,901.52	$ (21,948.85)	$ 22,901.52	
8555858369	Dept of Chamorro Affairs (Guam Museum)	$ 21,387.60		$ 22,657.10	$ (21,387.60)	$ 22,657.10	
	Sub Total	**$ 1,463,944.10**	**$ 392.82**	**$ 1,549,846.56**	**$ (1,431,678.09)**	**$ 1,582,505.39**	
	MAYORS						
0637100000	Santa Rita Mayor	$ 3,634.62	$ -	$ 3,998.76	$ (3,634.62)	$ 3,998.76	
0737100000	Ordot/Chalan Pago Mayor	$ 1,794.43	$ -	$ 1,801.81	$ (1,794.43)	$ 1,801.81	
1537100000	Hagatna Mayor	$ 1,509.34	$ -	$ 1,491.41	$ (1,509.34)	$ 1,491.41	
1637100000	Piti Mayor	$ 1,299.62	$ -	$ 1,280.51	$ (1,299.62)	$ 1,280.51	
1737100000	Mongmong/Toto/Maite Mayor	$ 1,016.33	$ -	$ 1,040.96	$ (1,016.33)	$ 1,040.96	
2637100000	Asan/Maina/Adelup Mayor	$ 907.71	$ -	$ 989.76	$ (907.71)	$ 989.76	
2737100000	Sinajana Mayor	$ 4,624.88	$ -	$ 4,495.20	$ (4,624.88)	$ 4,495.20	
3637100000	Dededo Mayor	$ 6,053.70	$ -	$ 6,685.01	$ (6,053.70)	$ 6,685.01	
4637100000	Yigo Mayor	$ 3,898.60	$ -	$ 3,412.88	$ (3,898.60)	$ 3,412.88	
5637100000	Umatac Mayor	$ 1,741.55	$ -	$ 1,161.78	$ (1,741.55)	$ 1,161.78	
6537100000	Agana Hts. Mayor	$ 5,343.60	$ -	$ 6,126.12	$ (5,343.60)	$ 6,126.12	
6637100000	Merizo Mayor	$ 972.83	$ -	$ 802.25	$ (972.83)	$ 802.25	
6737100000	Barrigada Mayors Office	$ 2,165.37	$ -	$ 2,256.41	$ (2,165.37)	$ 2,256.41	
7537100000	Agat Mayor	$ 2,112.30	$ -	$ 2,257.30	$ (2,112.30)	$ 2,257.30	
7637100000	Inarajan Mayor	$ 1,694.72	$ 25.00	$ 1,897.81	$ (1,694.72)	$ 1,922.81	
8537100000	Tamuning Mayor	$ 5,757.46	$ -	$ 5,859.90	$ (5,757.46)	$ 5,859.90	
8637100000	Talofofo Mayor	$ 1,904.08	$ 1,637.04	$ 2,840.06	$ (1,904.08)	$ 4,477.10	
9537100000	Mangilao Mayor	$ 4,845.57	$ -	$ 4,645.92	$ (4,845.57)	$ 4,645.92	
9637100000	Yona Mayor	$ 742.66	$ -	$ 884.18	$ (742.66)	$ 884.18	
	Sub Total	**$ 52,019.37**	**$ 1,662.04**	**$ 53,928.03**	**$ (52,019.37)**	**$ 55,590.07**	
	DPW ACCOUNTS						
4337100000	DPW-Village St. Lights	$ 339,323.00	$ 19,444.69	$ 337,450.06	$ (339,323.00)	$ 356,894.75	
5337100000	DPW- Primary St. Lights	$ 84,801.41		$ 84,088.60	$ (84,801.41)	$ 84,088.60	
6337100000	DPW-Sec/Coll St. Lights	$ 25,914.58	$ -	$ 25,657.76	$ (25,914.58)	$ 25,657.76	
7337100000	DPW-Signal Lights	$ 10,511.81		$ 10,684.00	$ (10,511.81)	$ 10,684.00	
	Sub Total	**$ 460,550.80**	**$ 19,444.69**	**$ 457,880.42**	**$ (460,550.80)**	**$ 477,325.11**	

	(B) AUTONOMOUS/PUBLIC CORP						
1437100000	Retirement Fund	$ 4,540.90		$ 4,414.53	$ (4,540.90)	$ 4,414.53	
1915500000	Guam Housing Corp Rental Division	$ 4,021.38	$ 16.00	$ 1,486.46	$ (1,887.88)	$ 3,635.96	1
2437100000	University of Guam	$ 185,927.98	$ -	$ 192,911.80	$ (378,839.78)	$ -	
4237100000	Guam Airport Authority	$ 523,858.31	$ -	$ 515,837.37	$ (523,858.31)	$ 515,837.37	
5357510000	University of Guam (NET METERED)	$ 81,823.87	$ -	$ 83,286.94	$ (165,110.81)	$ -	
6237100000	G H U R A	$ 12,822.30	$ -	$ 25,617.66	$ (24,866.65)	$ 13,573.31	
6437100000	Guam Community College	$ 53,872.27	$ 404.07	$ 52,072.39	$ (53,872.27)	$ 52,476.46	
7237100000	Guam Memorial Hospital	$ 502,518.36	$ 1,334.25	$ 175,777.16	$ (331,284.37)	$ 348,345.40	1
9137100000	Port Authority of Guam	$ 94,969.84	$ 0.75	$ 103,753.38	$ (94,869.84)	$ 103,854.13	
9157510000	Guam Community College (NET METERED)	$ 38,490.54	$ 288.68	$ 39,732.19	$ (38,490.54)	$ 40,020.87	
9173210000	Guam Solid Waste Authority	$ 5,752.47	$ -	$ 6,089.48	$ (5,752.47)	$ 6,089.48	
9337100000	Guam Waterworks Authority	$ 1,275,114.98	$ -	$ 1,275,268.46	$ (1,275,114.98)	$ 1,275,268.46	
8237100000	GPA	$ -			$ -	$ -	
	Sub Total	**$ 2,783,713.20**	**$ 2,043.75**	**$ 2,476,247.82**	**$ (2,898,488.80)**	**$ 2,363,515.97**	
	(C) OTHERS						
0337100000	Guam Legislature	$ 100.79		$ 69.49	$ (100.79)	$ 69.49	
9503154359	Guam Legislature (NET METER)	$ 5,924.79		$ 6,211.94	$ (5,924.79)	$ 6,211.94	
1237100000	Superior Court of Guam	$ 72,583.33		$ 75,914.82	$ (72,583.33)	$ 75,914.82	
2537100000	Agana (Guam) Post Office	$ 5,790.49		$ 6,090.40	$ (5,790.49)	$ 6,090.40	
2570200000	Customs & Quarantine Agency	$ 935.66		$ 1,068.24	$ (935.66)	$ 1,068.24	
3537100000	U.S. Post Office	$ 43,722.50		$ 45,129.94	$ (43,722.50)	$ 45,129.94	
5537100000	Dept. of Military Affairs	$ 73,447.37		$ 76,193.64	$ (73,447.37)	$ 76,193.64	
3209463043	Dept. of Military Affairs	$ 15,675.05		$ 15,813.42	$ (15,675.05)	$ 15,813.42	
5737100000	KGTF	$ 7,787.92		$ 6,679.40	$ (7,787.92)	$ 6,679.40	
7281000000	Tamuning Post Office	$ 4,596.59		$ 5,286.69	$ (4,596.59)	$ 5,286.69	
	Sub Total	**$ 230,564.49**	**$ -**	**$ 238,457.98**	**$ (230,564.49)**	**$ 238,457.98**	
	GRAND TOTAL	**$ 4,990,791.96**	**$ 23,543.30**	**$ 4,776,360.81**	**$ (5,073,301.55)**	**$ 4,717,394.52**	

GUAM POWER AUTHORITY
ATURIDÅT ILEKTRESEDÅT GUAHAN
P.O.BOX 2977 • AGANA, GUAM U.S.A. 96932-2977

Issues for Decision

Resolution No. 2018-10:

Relative to Unarmed Uniformed Security Guard Services

What is the project's objective and is it necessary and urgent?
The renewal of current contract is necessary and urgent in order to provide GPA with security guard services at various locations for the protection of GPA physical assets and employees.

Where is it at?
1) Supply Warehouse, Storage Yard and T&D Service Center
2) Gloria B. Nelson Public Service Facility
3) Cabras Power Plant and Dispatch Control Center Compound
4) Tanguisson Power Plant

How much will it cost?

Site		Monthly Cost
1)	Supply Warehouse, Storage Yard and T&D Service Center	$11,490.20
2)	Gloria B. Nelson Public Service Facility	$8,237.27
3)	Cabras Power Plant and Dispatch Control Center Compound	$11,490.20
4)	Tanguisson Power Plant	$11,490.20
	Monthly Total:	*$42,707.87*
	Total Additional Cost (4 months)	**$170,831.48**

Base Year	$512,494.44	CCU Resolution 2016-35
1st Year Option	$512,494.44	CCU Resolution 2016-35
Temporary Addition of Aggreko/Yigo CTs	$22,948.92	GM Authority
Final Option Year (4 mos)	$170,831.48	
Subtotal	*$1,218,769.28*	
2016-35 Approval	($1,024,988.88)	
Total Additional Funding	**$193,780.40**	

When will it be completed?

Base contract term:	06/01/16 – 09/30/16
	10/01/16 – 05/31/17
1st year option to renew term:	06/01/17 – 09/30/17
	10/01/17 – 05/31/18
2nd year option to renew term:	06/01/18 – 09/30/18

What is its funding source?
O&M Funds

The RFP/BID responses:
GPA-036-16: Pacific Island Security Agency (2nd year option to renew)

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

Resolution No. 2018-10

RELATIVE TO AUTHORIZING THE GUAM POWER AUTHORITY TO CONTRACT FOR UNARMED UNIFORMED SECURITY GUARD SERVICES

WHEREAS, the Guam Power Authority utilizes unarmed security guard services to protect its assets, employees and customers during and after duty hours; and

WHEREAS, the Consolidated Commission on Utilities approved a $1,024,988.88 two-year contract through Resolution 2016-35 with Pacific Island Security Agency for unarmed uniformed security guard services at four (4) primary locations: Supply Warehouse, Storage Yard, and T&D Service Center; Gloria B. Nelson Public Service Facility; Cabras Power Plant and Dispatch Control Center Compound; and Tanguisson Power Plant from June 2016 to May 2018; and

WHEREAS, GPA assumed the security services of the Aggreko/Yigo Combustion Turbine Power Plant Compound in October 2017, and temporarily added this fifth (5^{th}) site to the existing contract from October 2017 to November 2017 through the General Manager's authority; and

WHEREAS, in October 2017, GPA initiated a separate planned procurement of the security services for the Aggreko/Yigo Combustion Turbine Power Plant Compound; and the Dededo Combustion Turbine Power Plant Compound and Piti Unit #7 in preparation to assume responsibility of security services commencing December 2017; and

WHEREAS, the Authority seeks to issue new comprehensive procurement contract for security services of the original four (4) sites and the additional three (3) sites by September 2018; and

WHEREAS, GPA exercised and completed the contract base and first year option and wishes to continue its second-year option to renew; and

WHEREAS, GPA seeks authorization to exercise a second and final renewal option at the cost of $170,831.48 for the term of June 2018 to September 2018 to continue services critical to the continuous safeguarding of its power generation assets**.**

NOW, THEREFORE, BE IT RESOLVED, by the CONSOLIDATED COMMISSION ON UTILITIES, the GOVERNING BODY of the GUAM POWER AUTHORITY as FOLLOWS:

1. After careful consideration, the Consolidated Commission on Utilities finds that the contracting for security for GPA properties is reasonable, prudent, and necessary.

2. The General Manager of the Guam Power Authority is hereby authorized to exercise a second and final renewal contract option for unarmed security services for a term beginning June 1, 2018 through September 30, 2018 at the additional cost of $170,831.48, with a total contract value of $1,218,769.28.

RESOLVED, that the Chairman of the Commission certifies and the Secretary of the Commission attests the adoption of this Resolution.

DULY AND REGULARLY ADOPTED AND APPROVED THIS 22th DAY OF MAY 2018.

Certified by:	Attested by:
_____	_____
JOSEPH T. DUENAS	**J. GEORGE BAMBA**
Chairperson	Secretary
Consolidated Commission on Utilities	Consolidated Commission on Utilities

I, J. George Bamba, Secretary for the Consolidated Commission on Utilities (CCU), as evidenced by my signature above do certify as follows:

The foregoing is a full, true, and accurate copy of the resolution duly adopted at a regular meeting of the members of Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

Ayes: _____

Nays: _____

Absent: _____

Abstain: _____

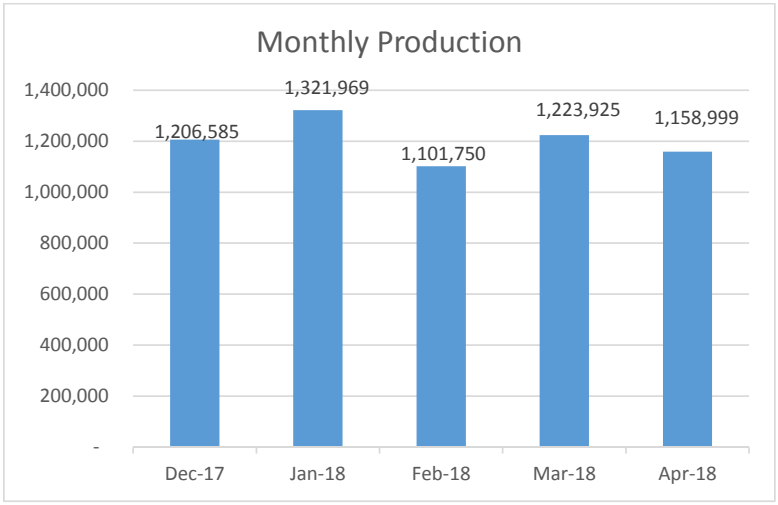
GUAM WATERWORKS AUTHORITY

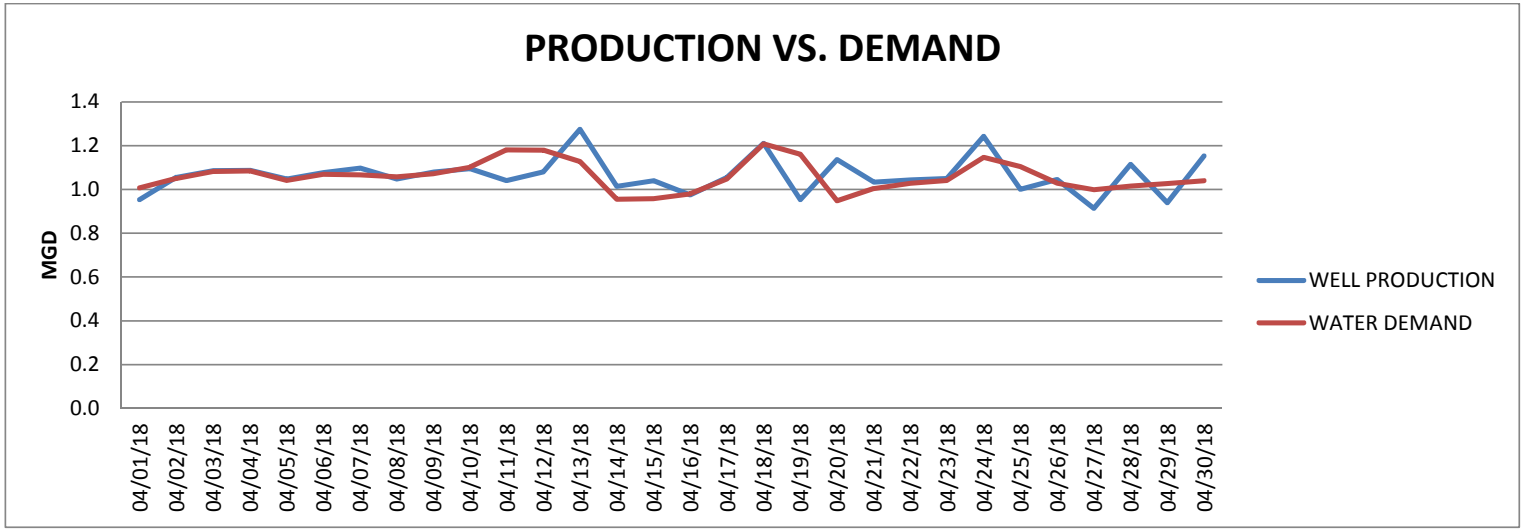
General Manager's Report
GPWA CCU Board Meeting, May 22, 2018

Operations Update

Production

Monthly Production Summary - April 2018					
Deep Wells				35.4	MGD
	Active wells =	95	of 120		
	Avg days in operation =	30.00	days		
	Total Production =	1,063,306	Kgals		
Springs				0.00	MGD
	Avg days in operation =	0	days	*placed on standby	
	Total Production =	0	Kgals		
Ugum Surface Water Plant				2.1	MGD
	Avg days in operation =	30	days		
	Total Production =	63,763	Kgals		
Tumon Maui Well				1.03	MGD
	Avg days in operation =	30	days		
	Total Production =	31,930	Kgals		
		1,158,999	Kgals	38.6	MGD





Distribution

Monthly Distribution Summary - April 2018					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	11	21	20	95.2%
	Central	7	15	13	86.7%
	Southern	7	15	14	93.3%
		25	51	47	92.2%

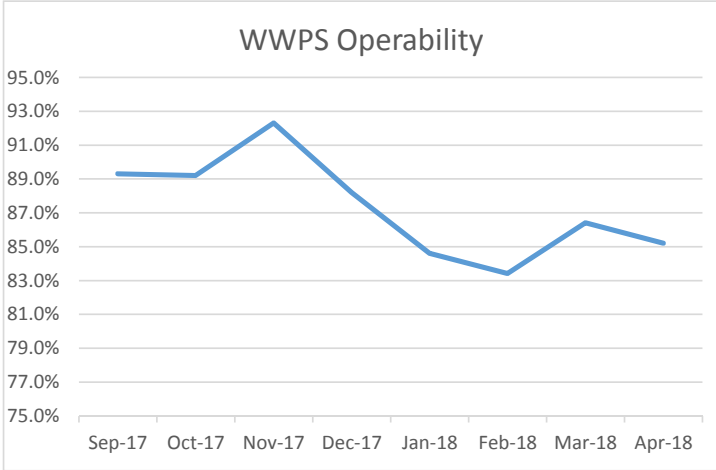


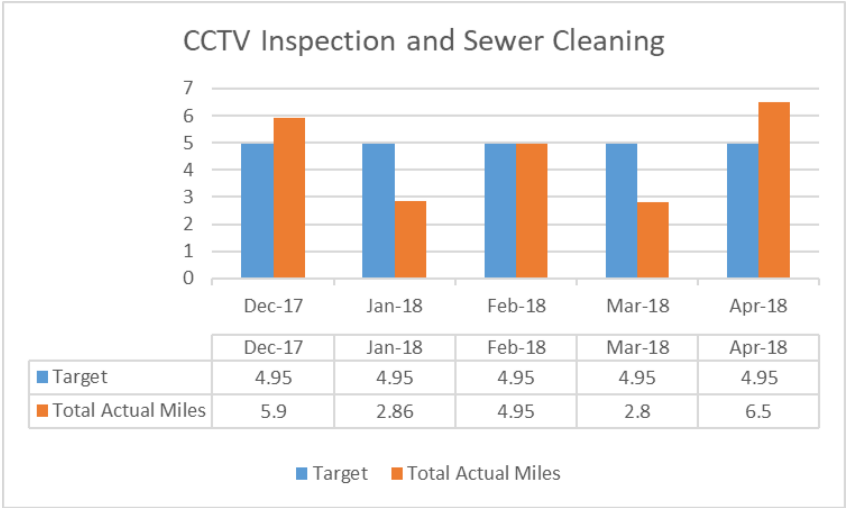
Wastewater Collections

Monthly Collections Summary - April 2018

Wastewater Pump Stations

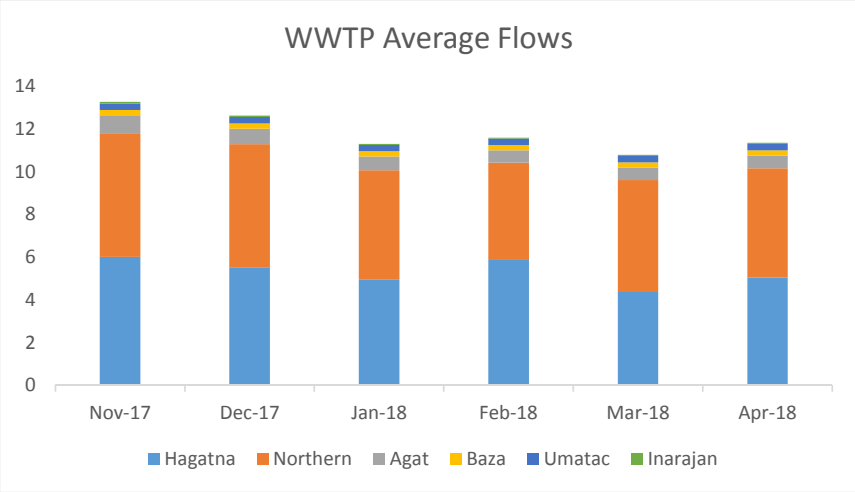
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	46	88.5%
	Central	29	63	55	87.3%
	Southern	27	54	43	79.6%
		78	169	144	85.2%



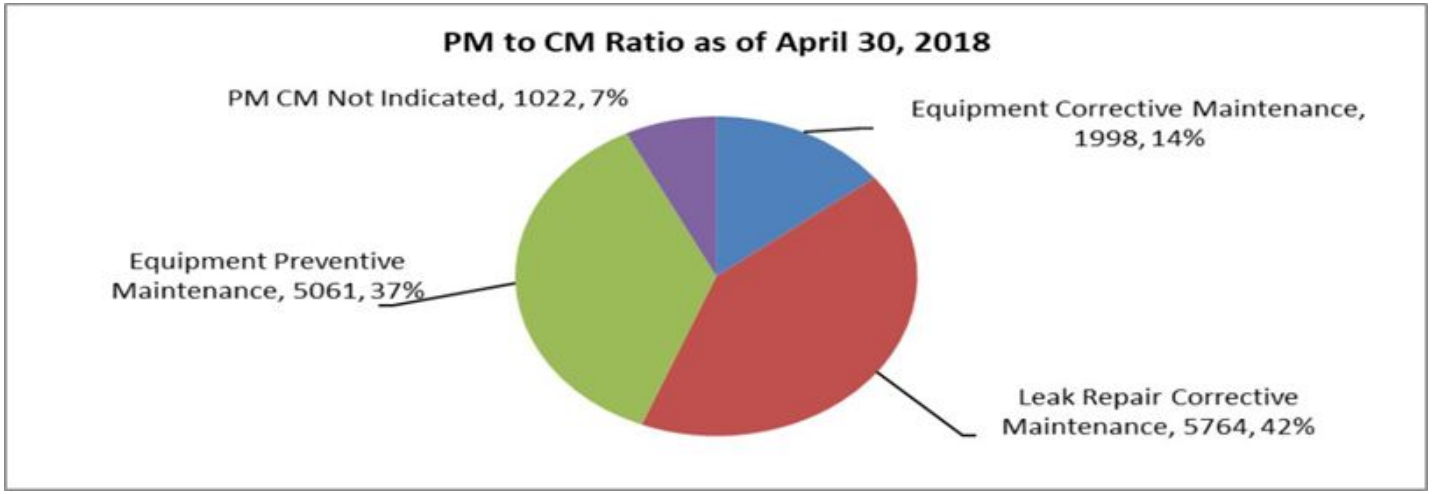


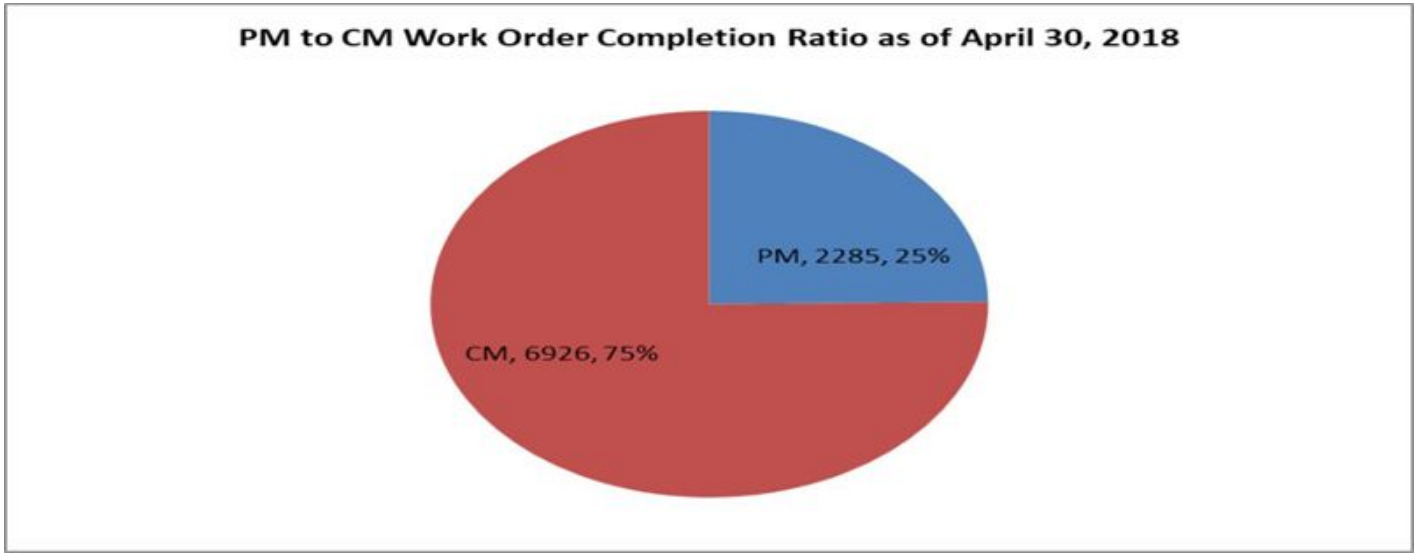
Wastewater Treatment

Monthly Wastewater Treatment Summary - April 2018				
WW Treatment Plants - Flows				
	Facility	**Avg. Daily Flows**	**Sludge (lbs)**	**Sludge Disp. ($)**
	Hagatna	5.03	527,980	$ 47,518
	Northern	5.12	934,500	$ 84,105
	Agat	0.59		
	Baza	0.25		
	Umatac	0.30		
	Inarajan	0.06		
		11.35	1,462,480	$ 131,623



Asset Management





Operational Issues

Production & Distribution

- Leak repair
  - Crews maintaining performance - There are 49 pending repairs, 32 requires a backhoe
  - pending IFB for leak repair services
  - pending IFB for advanced remote leak detection services
- Recently reported "leak" at Asan Springs was inaccurate; overflow from Asan Springs was a natural result of spring water exceeding capacity of raw water reservoir and a clogged storm water drain.
  - No water from GWA's distribution system was lost at this location.
  - GWA unclogged portion of the storm water system, however, a segment of DPW's storm water system is still clogged and allowing storm water runoff from the springs to run along the curb and gutter of the roadways in the vicinity.
- Ugum WTP – scope of SCADA improvements finalized – pending pricing adjustments and change order.
- 2018 Pump/Motor order – released on February 16, 2018; Submersible Motor Order: 50 ordered, 49 have been received, 98% of order is complete. We are pending 1 each 150hp Submersible motor. Submersible Pump Order: 70 ordered and 70 received, 100 % order complete.
- GWA Crane Repair –all issues resolved, unit is working properly; load testing/certification pending.

Wastewater Collection & Treatment

- CCTV:
  - Crews completed approximately 2.81 miles in March and approximately 6.5 miles in April.
- Pump station facility maintenance efforts still underway
- All issues related to USEPA inspection at Hagatna WWTP have been addressed with two items pending.
  - Effluent pump was down – repair on one pump completed, critical spare motor in procurement.
  - Digester mixer was down – pending gearbox repair
  - Floc chamber mixers were down – repairs have been completed, all floc chambers in operation.
  - One Centrifuge is operational and second is pending HMI display panel replacement scheduled for today.
  - Safety issue – motor guards have been reinstalled.

Meters

COMPLETED FIELD ACTIVITY JAN 2017 THRU APRIL 2018 (POSTED IN CIS)	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	TOTAL:	COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Test Meter	30	9	9	371	745	87	393	743	1000	1007	434	378	750	969	1213	1429	9567	224
GWA - Meter Exchange	393	179	220	276	482	353	501	807	1526	1039	452	259	239	1086	2120	121	10053	0
GWA - Verify Zero Report	30	124	114	94	96	402	261	199	550	89	82	169	356	106	117	69	2858	3
GWA - Verify Low Usage	0	0	0	2	37	36	196	488	657	202	127	612	858	1122	1055	463	5855	21
TOTAL:	453	312	343	743	1360	878	1351	2237	###	###	1095	1418	###	3283	4505	2082	28333	248

# OF METERS TESTED AS PER METER TEST FACILITY REPORTS:	345	350	144	252	305	210	302	397	1013	1130	927	704	721	1041	1347	815	10003	
# OF BACKBILLINGS APPLIED AS PER FINANCE REPORTS:	0	0	0	20	122	84	29	111	219	80	77	4	136	23	323	48	1276	$ 869,123.79

# OF FIELD CREW PERFORMING CHANGE OUTS:	19	10	13	9	21	21	14	24	35	28	28 *	28 *	5	13	2
# OF ADMIN STAFF TO CREATE AND POST FIELD ACTIVITIES IN CIS:	7	4	5	6	9	9	10	13	15	15	13	13	8	11	5
# OF SUPPLY STAFF TO ISSUE MATERIALS AND PROGRAM NEW METERS:	2	2	2	2	2	2	2	2	2	2	2	2	2	4	0
# OF TEST FACILITY PERSONNEL TESTING METERS:	2	2	2	3	3	3	3	3	3	3	3	3	3	2	2
# OF ACCOUNTANTS CALCULATING BACK BILLS:	0	0	0	2	3	2	2	3	3	2	2	2	2	2	2
TOTAL:	30	18	22	22	38	37	31	45	58	50	48	48	20	32	11

*Project overtime on hold Nov 18, 2017 thru Dec 16, 2017. During this period, 4 personnel performed work on this project during the regular work day with a majority of the work completed during Nov and Dec month occuring before and after the OT moratorium.

NOTE: MARCH 18, 2018 - PROJECT ON HOLD PENDING ARRIVAL OF METERS

Meters

- Meter, Badger 5/8"x3/4" M25LL Integral, Stock# 65293 (1500 each, Batch 250), 20% (300ea.) will be brought to MTF to be tested.
- Meter, Badger 5/8"x3/4" M25 (HRE), Stock#60484 (3456 each, Batch 576), 20% (696ea.) will be brought to MTF to be tested.
- Meter, Badger 5/8"x3/4" M25 (HRE), Stock#60484 (5044 each, Batch 841), 20% (1008ea) will be brought to MTF to be tested.
- All meters arrived on 5/17/2018 assembled and still in stop mode.

REMAINING ACTIVE BADGER LP MODELS AS OF APRIL 30, 2018:

ACTIVE LP MODELS - PURCHASE MO & YEAR	COUNT	
2012	8904	WARRANTY EXPIRED
Jan-13	2161	
Feb-13	764	
Mar-13	628	
May-13	1445	ACTIVE WARRANTY
Aug-13	2595	
Sep-13	1	
Nov-13	1	
Jan-14	1	
Feb-14	650	
Apr-14	2446	
Jun-14	71	
Aug-14	1405	
TOTAL :	21072	

12457	WARRANTY EXPIRED
8615	ACTIVE WARRANTY

Marbo (Andy-South) Wells – Status

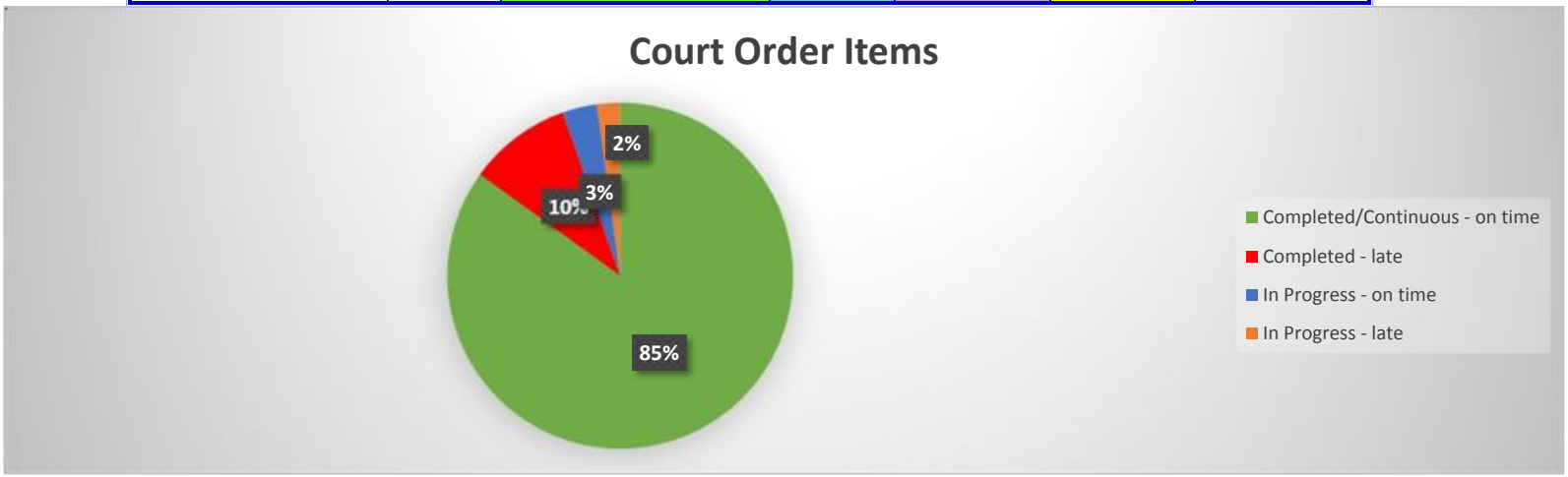
- Involuntary reversion appears imminent; GWA Counsel transmitted draft easement documents to GSA for consideration with DoD
- Waiting on response from GSA

One Guam Update

- Tumon Maui Well:
  - For the vent shaft leaks, GWA's Consultant B&C needs a work authorization so they will draft a proposal. Initial water flow from the vent shaft was caused by a failure of the level indicator which allowed the tank to overflow. A new level indicator will be employed to avoid the problem in the future.
- Captain Jones' last day will be June 22, 2018. Her replacement, Captain Dan Turner attended the One Guam meeting in May and met with the Chairman briefly.
- Santa Rosa Tank:
  - GWA and DOD are finalizing the design of the Intertie. All the property maps were completed and submitted to DOD.
  - Once the maps are completed, the letter to General Cox will be finalized for the temporary easement.
  - The After-Action Report format is being reviewed.
  - The Standard Operation Procedure (SOP) and MOU are being reviewed by DOD.
- Agat-Santa Rita WWTP
  - Compensation for the Agat-Santa Rita easement is still under discussion.
- DOD Distribution Lines
  - Southern High, Leon Guerrero property and Murray road wastewater and water lines are resolved, including how the customers will be charged for the service.
- Date Sharing MOU is being drafted
  - This MOU will outline the standards for GIS, hydraulic and other data to be shared between DOD and GWA. Draft expected in May.

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	79	2	9	3	97.8%



Status Information

- 2 items delayed
  - Meters
  - Baza Gardens Sewer Line
- Final Date to complete all Court Order items is December 31, 2020.
- Overflow or Bypass events reported to USEPA:
  - 04/08/2018 - Redondo Luchan, Dededo – Manhole overflow. Combination of mostly rocks and some grease. Probable damaged sewer line;
  - 05/09/2018 – Aga Drive, Santa Rita – Sewer Overflow to wetland. Under investigation as a possible sewer refurbishment contractor problem.
  - 05/17/2018 - First heavy rain events (3): - Majanao Lift Station and Westbrook Barrigada -- pump air lock, Captain Reyes Way Barrigada manhole – rocks and grit (no FOG).

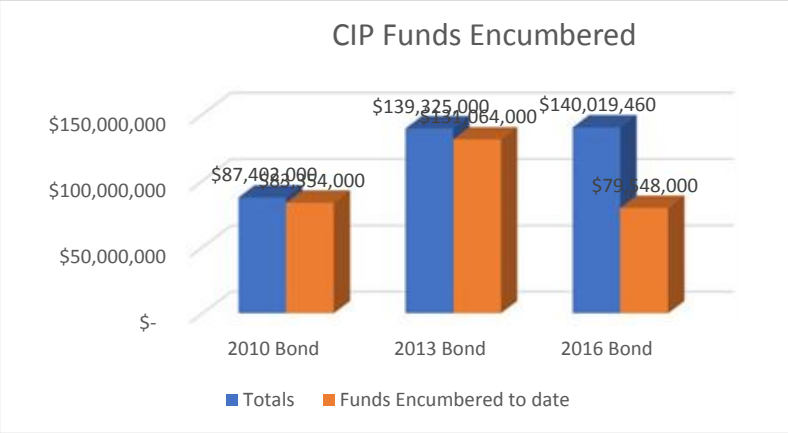
CIP Summary

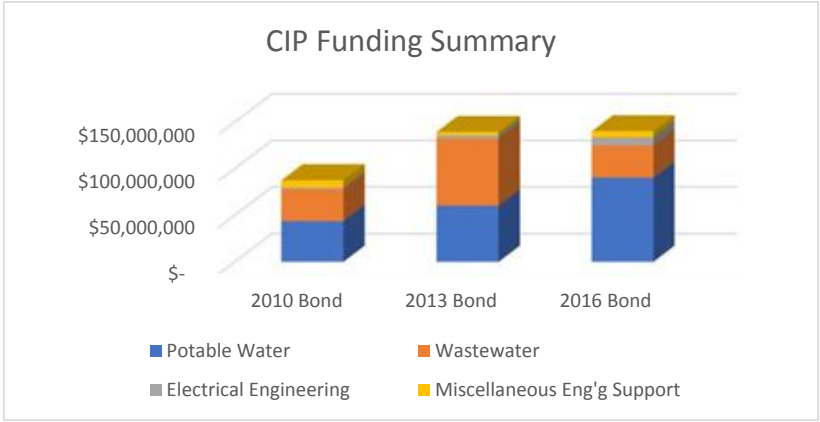
CIP Summary - Project Encumbrance

	2010 Bond		2013 Bond		2016 Bond			
	Funded	Complete	Funded	Complete	Funded	Complete	Total CIP Projects	%
Potable Water	28	17	21	7	20	0	35	49%
Wastewater	16	13	7	3	8	1	22	31%
Electrical Engineering	5	5	6	1	5	0	10	14%
Miscellaneous Eng'g Support	2	0	3	1	4	1	4	6%
Totals	51	35	37	12	37	2	71	100%
% of Total CIP by Fund Source	72%		52%		52%			

CIP Summary - Project Amounts

	2010 Bond		2013 Bond		2016 Bond			
	Funded	%	Funded	%	Funded	%	Total CIP Projects	%
Potable Water	$ 41,903,305	48%	$ 58,317,117	42%	$ 64,647,830	46%	$ 164,868,252	45%
Wastewater	$ 36,009,577	41%	$ 73,837,883	53%	$ 60,227,170	43%	$ 170,074,630	46%
Electrical Engineering	$ 1,748,118	2%	$ 3,395,000	2%	$ 8,750,000	6%	$ 13,893,118	4%
Miscellaneous Eng'g Support	$ 7,741,000	9%	$ 3,775,000	3%	$ 6,394,460	5%	$ 17,910,460	5%
Totals	$ 87,402,000	100%	$ 139,325,000	100%	$ 140,019,460	100%	$ 366,746,460	100%
Funds Encumbered to date	$ 83,354,000	95%	$ 131,064,000	94%	$ 79,548,000	57%		
% of Total CIP Funding	23.8%		38.0%		38.2%			





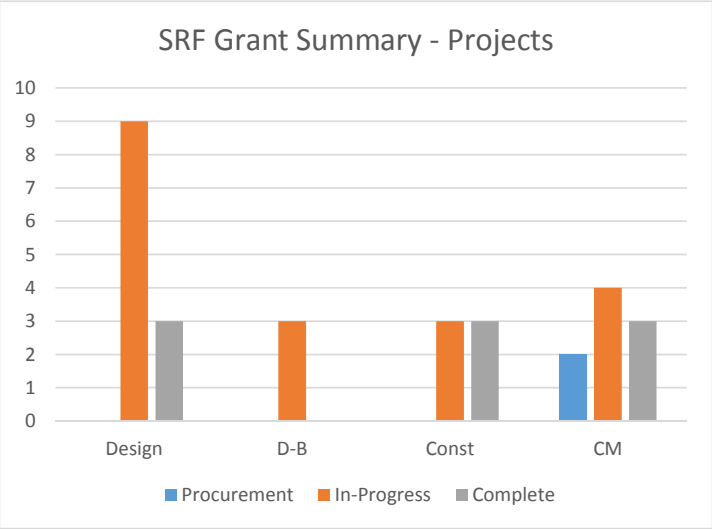
SRF Grant Summary

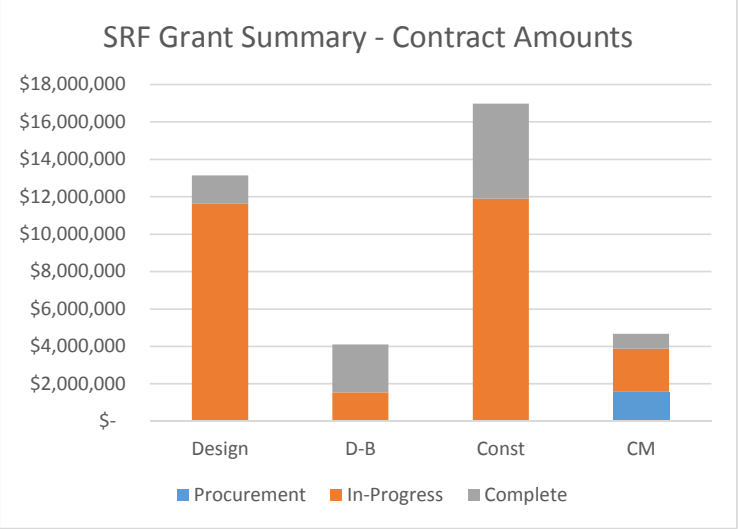
SRF Grant Summary - Projects

	Procurement	In-Progress	Complete	Totals	%
Design	0	9	3	12	40%
D-B	0	3		3	10%
Const	0	3	3	6	20%
CM	2	4	3	9	30%
Totals	2	19	9	30	
%	7%	63%	30%		

SRF Grant Summary - Contract Amounts

	Procurement	In-Progress	Complete	Totals	%
Design	$ -	$ 11,642,195	1,499,418	$ 13,141,613	34%
D-B	$ -	$ 1,542,979	$ 2,565,237	$ 4,108,216	11%
Const		$ 11,902,506	$ 5,086,129	$ 16,988,635	44%
CM	$ 1,572,000	$ 2,303,747	$ 802,243	$ 4,677,990	12%
Totals	$ 1,572,000	$ 27,391,427	$ 9,953,027	$ 38,916,454	
%	4%	70%	26%		





OEA Grant Summary

- NDWWTP Upgrades
  - 30% design submittal has been submitted.
  - USEPA reported recently that two potential but likely insignificant cultural resources may have been found, waiting on more detail
- Outfall Diffuser:
  - Post-bid Input from bidders received
  - Bid package being revised based on comments; re-design of anchors being evaluated;
  - GWA expects review set in a few weeks.
- Sewer Line Interceptor Design-Build
  - Multi-Step IFB has been issued.
  - Technical Proposal received and Qualified Bidder List established – 3 bidders qualified.
  - Bids opened 4-26-18, GWA accepted lowest responsible/responsive bid from CoreTech-Hawaiian Dredging LLC.
  - Resolution 32-FY18 submitted for CCU action
- NGLA Observation wells – Design work on-going
  - Workshop for 30% design completed in May.

Action Item	Date (Target)	Date (Actual)	Status	Remarks
Project Funds Available	July-16	AUG-30-16	Completed	
Land Acquisition	Jan-17	Jan-17 (Compensation Pending)	Pending	Survey complete, appraisals complete – under review
Procure PM/CM Firm	Jan-17	Jan-17 (NTP Issued Feb 10th)	Completed	
Procure Design Firm	Jul-17		Completed	Contract issued; kickoff pending
Design -- 30/60/90/Final -- Review	Jun-18		On-target	Project design schedule under review by PM/CM
NEPA Analysis and Determination	Feb-17		Delayed	USEPA work on-going; procurement of contractor completed
Procure Construction Firm	Dec-18		On-target	
Construction Complete/Commence Operations	Nov-21		On-target	
Sewer line connection from MCB to GWA infrastructure	Jul-19		On-target	
MCB Initial Operating Capability	Jul-22		On-target	

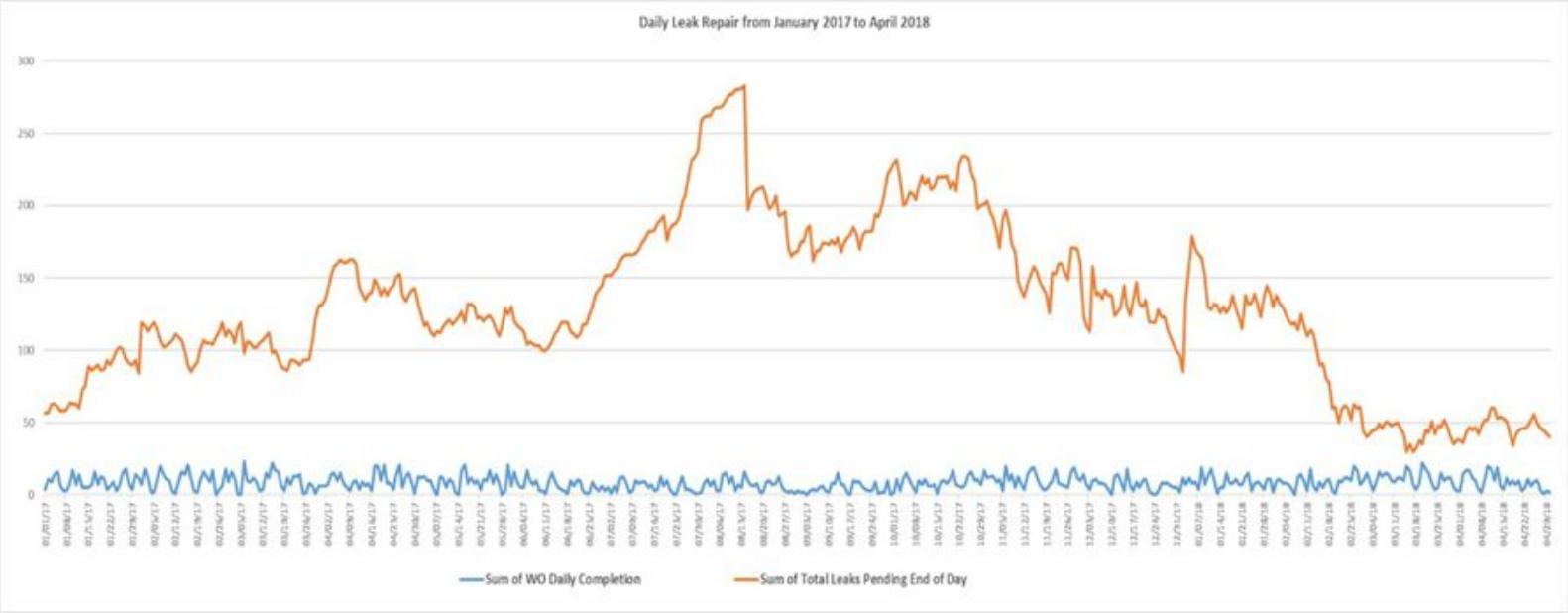
Land Acquisition Summary

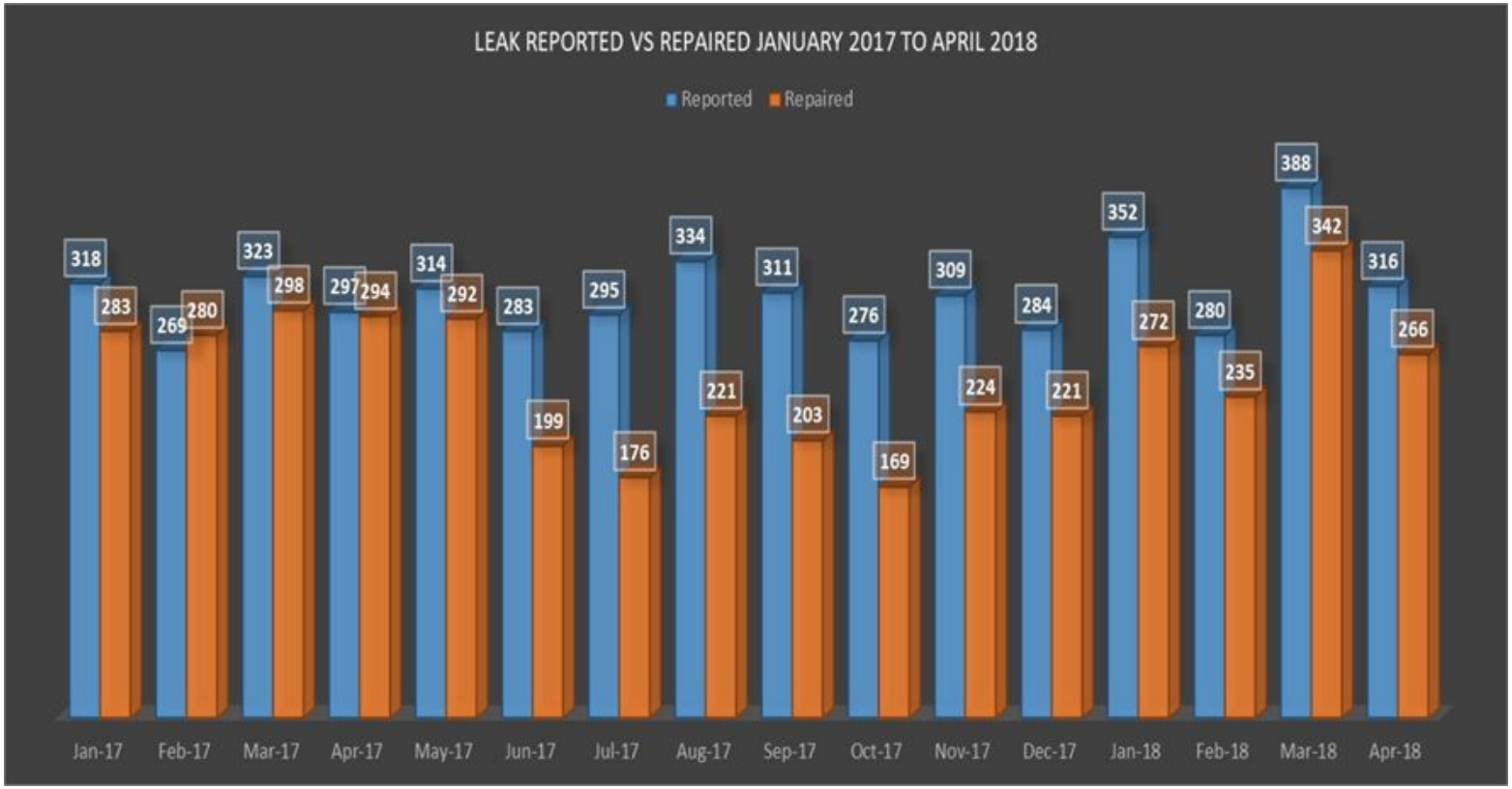
GWA Facility	Location	Gov't./Private/Other	Land Acquisition Status
Tanks	Ugum	Private	Appraisal Services completed 05/09/18.
	Astumbo	Gov't./CLTC	GWA and DoLM working together on Land Registration process. Pending Notification of surrounding lot owner information from DoLM.
	Piti	Private	Preliminary geotechnical investigation and archaeological investigation in the process 05/01/18.
Expansion of the Northern District Wastewater Treatment Plant (NDWWTP)	Dededo	Gov't./GALC	Pending Grant Deed from DoLM 05/02/18.
Deep Well	A-12	Private	Property ownership vested in GWA 10/16/17.
	AG-12	Dept. of Agriculture/Manhita Farms	DCA is still verifying suspected buildings/concrete houses encroachments along the northerly and southerly boundaries 04/02/18.
	Y-8	Gov't./CLTC	Deed of Dedication drafted for legal counsel approval 05/01/18.
Booster Pump Station	Agfayan	Private	No response from private property owner as of 05/11/18. TGE will conduct physical visit for response letter received 05/11/18.
Sewer Pump Stations	Property adjacent to Southern Link	Private	GWA started acquisition process on 12/23/2016. Property ownership vested in GWA 08/11/2017.
Asan Springs	Asan	Gov't./Private	Pending meeting confirmation from GHURA regarding property ownership 05/11/18.

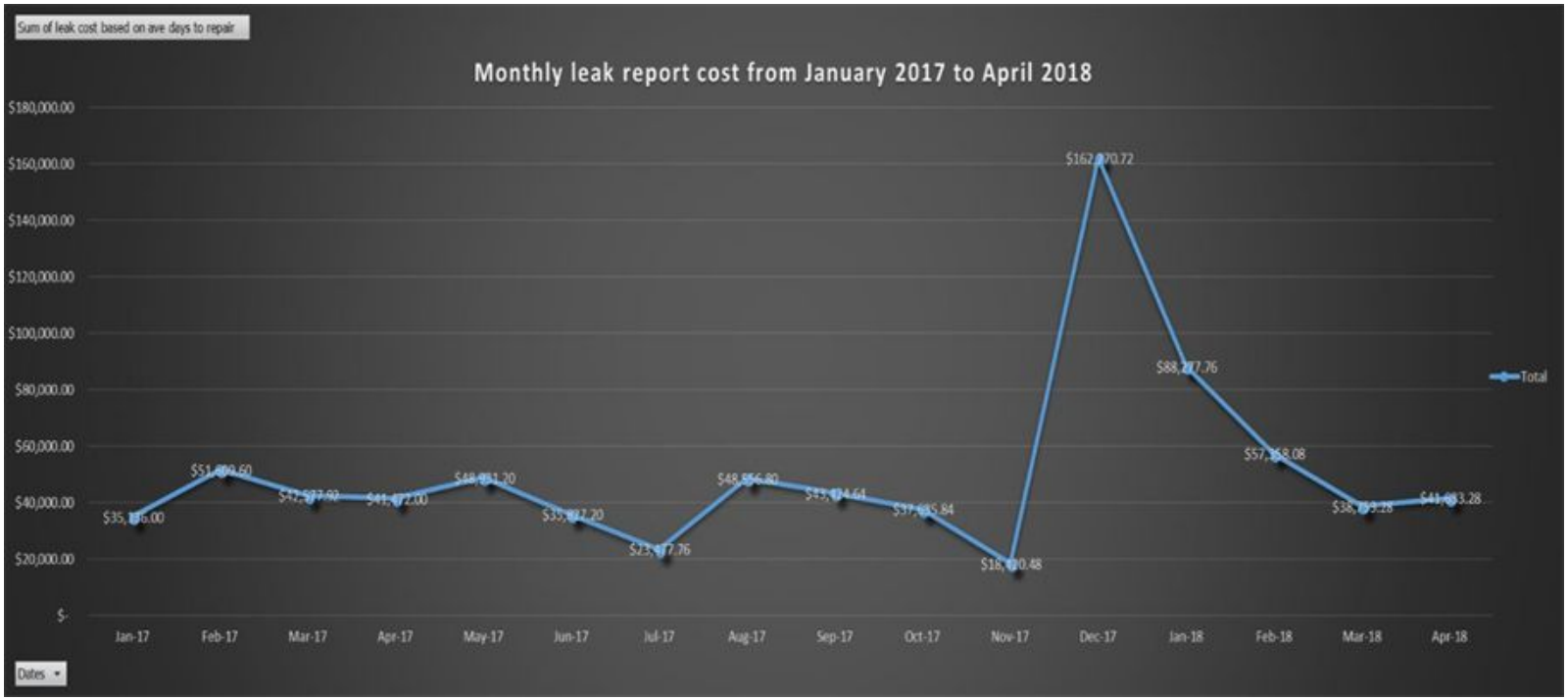
NRW – Update

- Water Loss Control Program activities are on-going
  - Latest water audit results are being reviewed by Technical Consultant under EPA grant. Conference call to be set up this week with consultant to review GWA responses and finalize date request.
  - Production meter replacement program is underway for 65 well sites. Portable flow meter is being procured to calibrate existing meters.
  - District Metering Areas are currently being developed for pilot project. Locations have been identified. Congresswoman Bordallo's Grant application.
  - DOI Grant application has been submitted for water loss control program enhancements. This will include training and equipment.

Leak Repair Summary




LEAK REPORTED VS REPAIRED JANUARY 2017 TO APRIL 2018
Reported
Repaired
318
283
269
280
323
298
297
294
314
292
283
199
295
176
334
221
311
203
276
169
309
224
284
221
352
272
280
235
388
342
316
266
Jan-17
Feb-17
Mar-17
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
Apr-18



Assumptions:

1. Leak rate = 4 gpm
2. Cost per kgal = $4.00

DASHBOARD

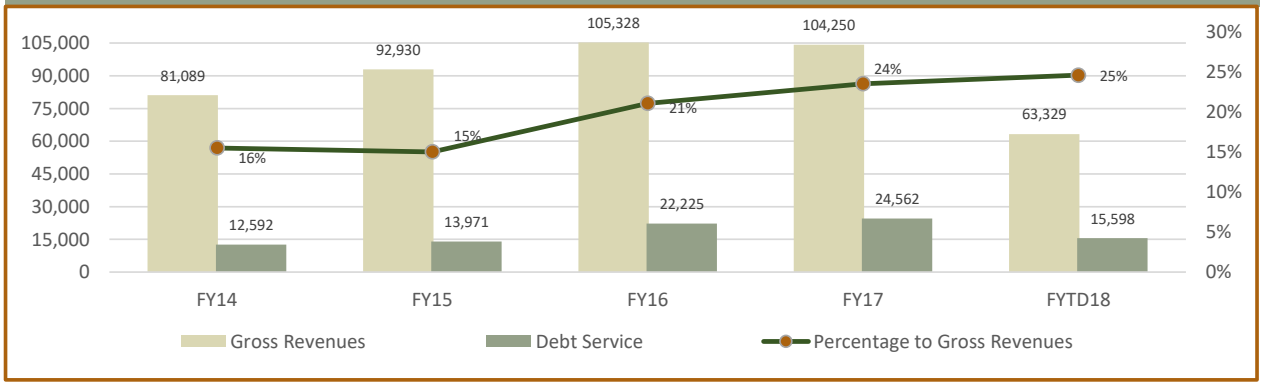
FYTD April 2018 Budget vs Actual ($000)

Category	Description	Budget FYTD18	Actual FYTD18	Variance
Rate Based Revenues	Water	$41,591	$39,959	($1,631)
	Wastewater	23,253	23,123	(129)
	Total	64,843	63,083	(1,760)
Operations & Maintenance	Salaries & Benefits	15,467	13,437	(2,030)
	Power	7,406	8,392	986
	Water Purchases	5,048	5,208	161
	A&G	7,506	5,976	(1,530)
	Contractual	2,613	2,482	(130)
	Total	$49,305	$46,630	($2,675)

Key Financial Ratios ($000)

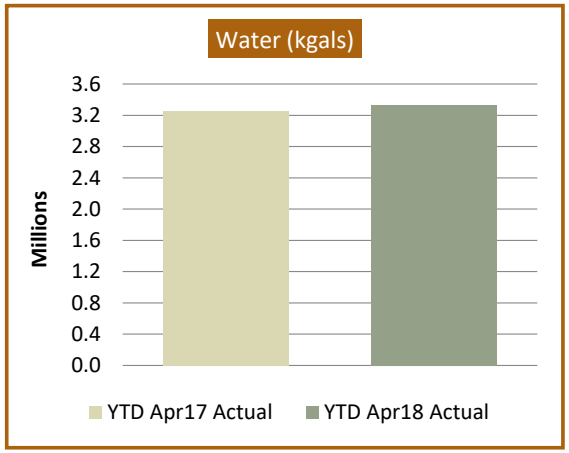
Category	FY18	FY17
Accounts Payable $$/Days	$4,149 / 46 days	$5,390 / 59 days
Accounts Receivable $$/Days	$15,531 / 61 days	$15,451 / 51 days
Days Cash On Hand	189 days	184 days
Annual Debt Service (Revenue Bonds)	$26,739	$24,563
Debt Service Coverage (Bond/PUC)	1.79 / 2.21	1.98 / 2.44

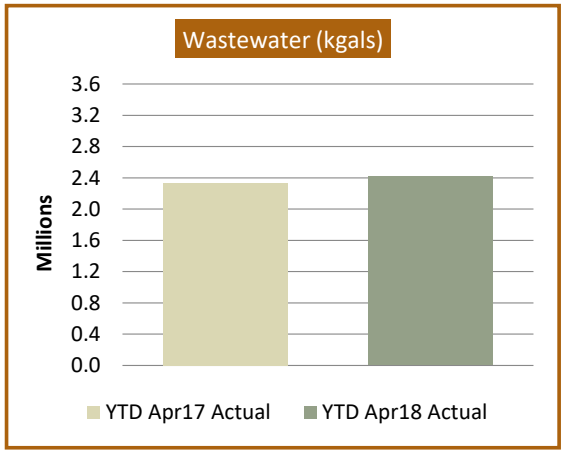
Debt as a Percent to Gross Revenue

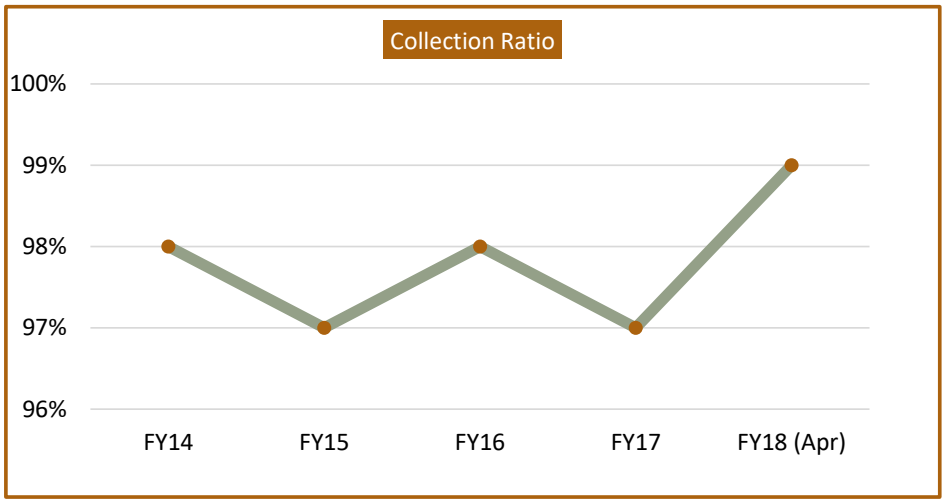


(1) Gross Revenues excludes SDC
(2) Debt Service Excludes Cap I

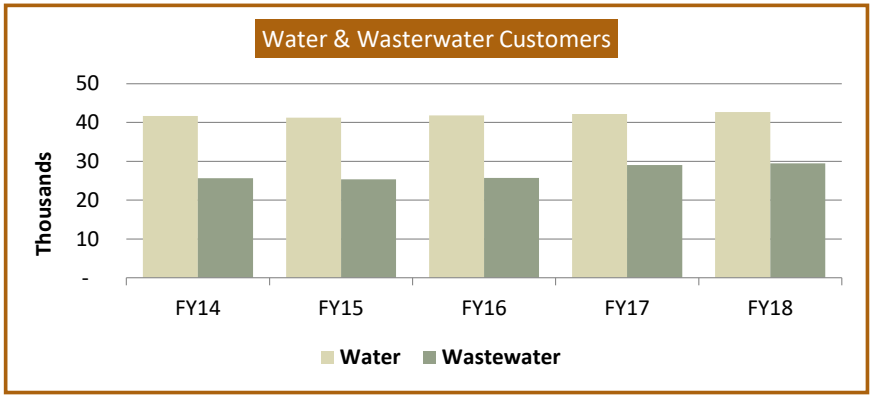
Water & Wastewater Analytics

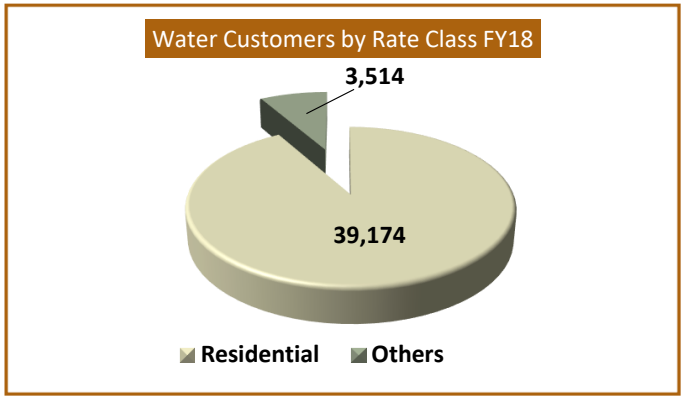


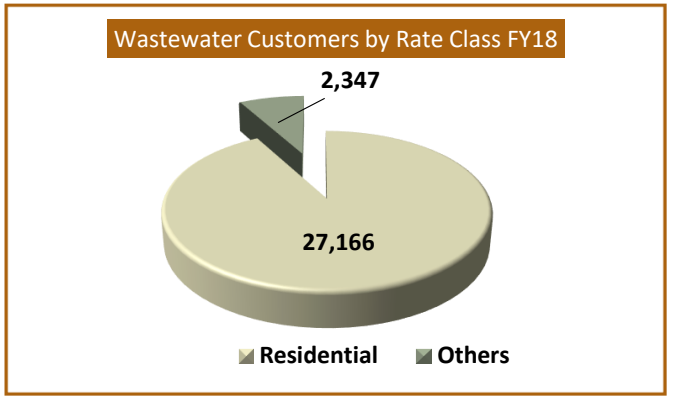


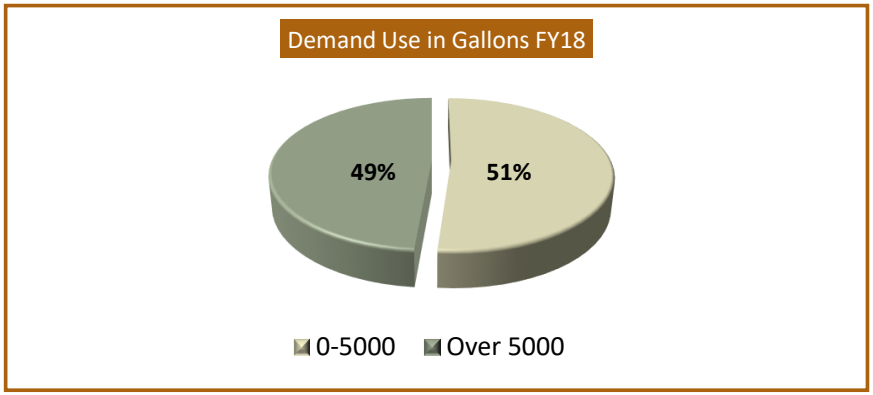


Water & Wastewater Customers





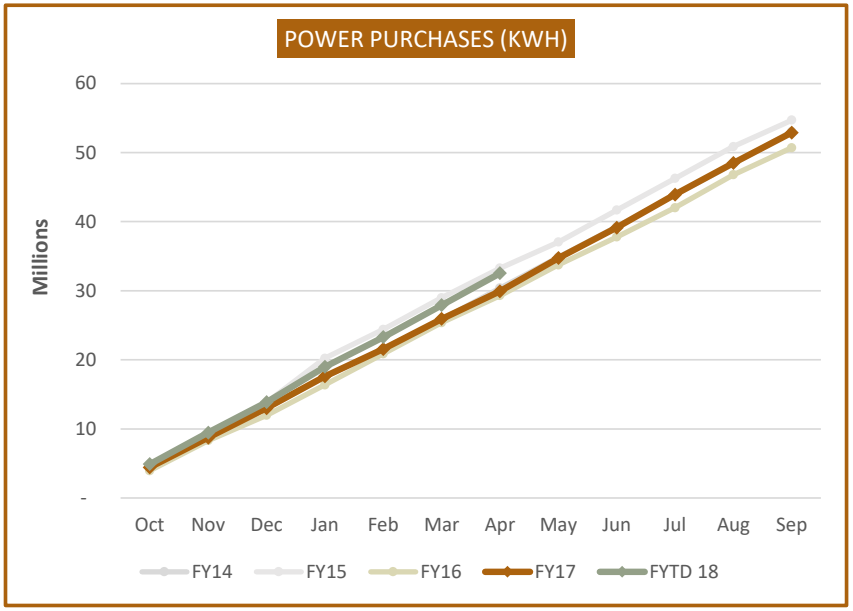


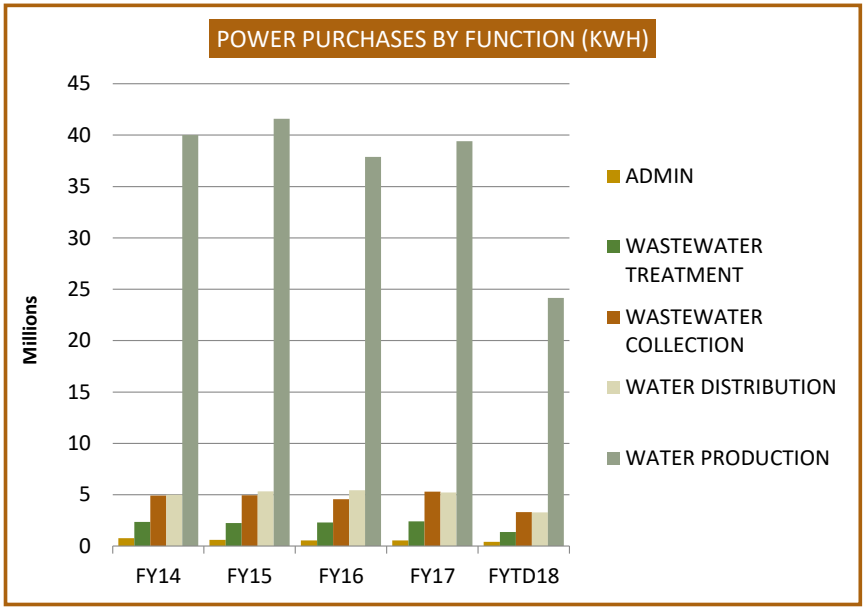


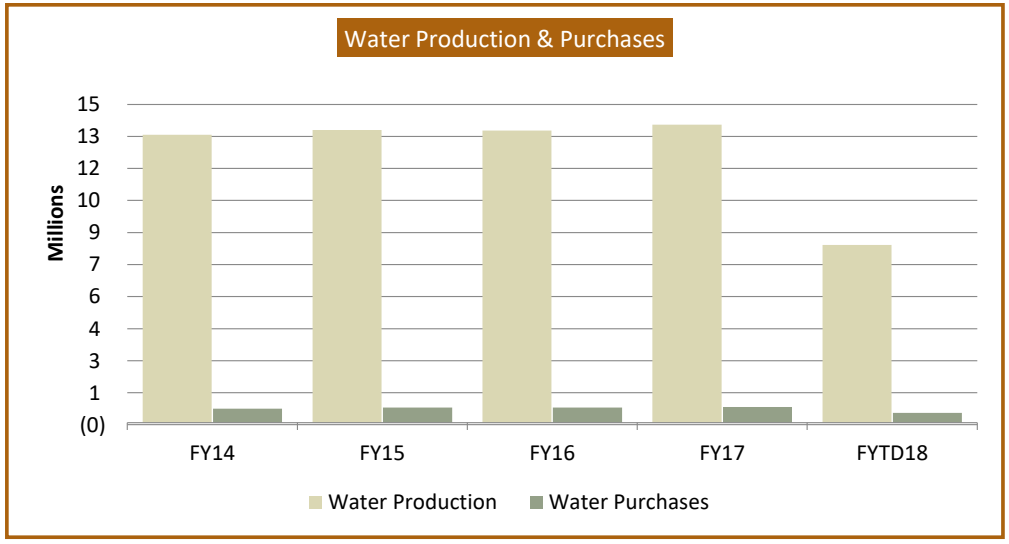
Top Ten Largest Water and Wastewater Customers – April 2018

Water			Wastewater		
Customer Name	FYTD18 Revenues	% of Total	Customer Name	FYTD18 Revenues	% of Total
1) MDI GUAM CORPORATION/LEOPALACE	$787,175	1.97%	1) AIR FORCE DOD	$2,200,025	9.52%
2) PACIFIC ISLANDS CLUB	687,809	1.72%	2) NAVY DOD	1,355,393	5.86%
3) HOTELS OF THE MARIANAS INC	579,823	1.45%	3) HOTELS OF THE MARIANAS INC	620,048	2.68%
4) HYATT	532,712	1.33%	4) HYATT	570,321	2.47%
5) HOTEL NIKKO GUAM	514,361	1.29%	5) HOTEL NIKKO GUAM	549,729	2.38%
6) GUAM REEF HOTEL INC	486,635	1.22%	6) GUAM REEF HOTEL INC	520,827	2.25%
7) SHERATON LAGUNA GUAM RESORT	458,360	1.15%	7) SHERATON LAGUNA GUAM RESORT	490,454	2.12%
8) MDI GUAM CORPORATION/WESTIN	379,827	0.95%	8) MDI GUAM CORPORATION/WESTIN	406,096	1.76%
9) OUTRIGGER GUAM RESORT	373,016	0.93%	9) OUTRIGGER GUAM RESORT	399,659	1.73%
10) GOODWIND DEVELOPMENT CORP/MICROMALL	355,457	0.89%	10) GOODWIND DEVELOPMENT CORP	379,039	1.64%
Total	**$5,155,176**	**12.90%**	**Total**	**$7,491,589**	**32.41%**

Power, Water Purchases and Water Production

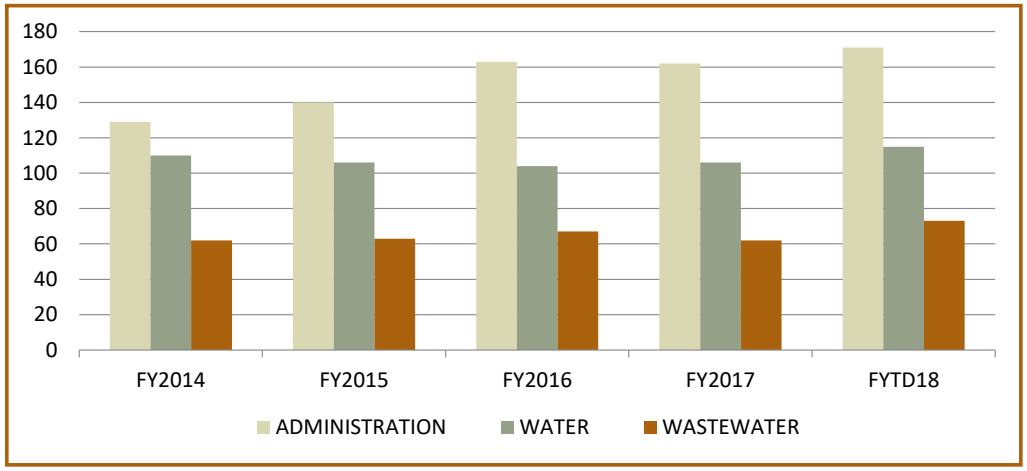




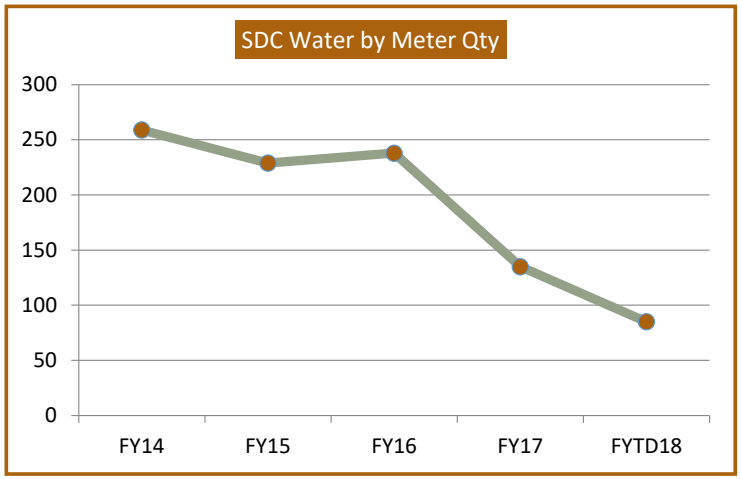


FTE by Major Division

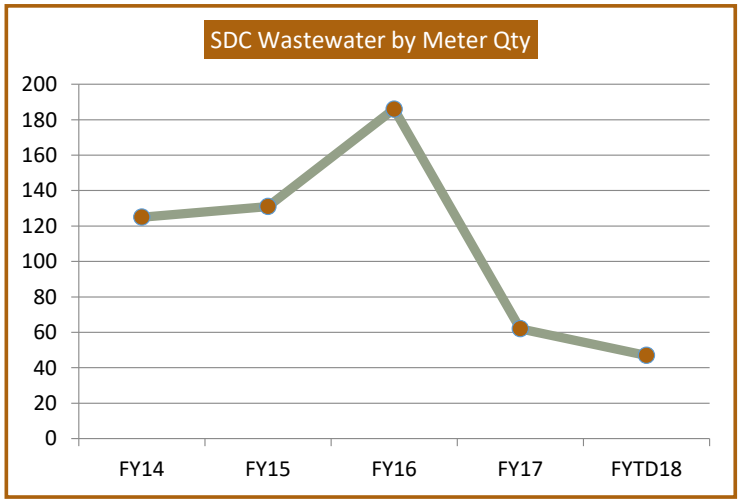
DIVISION	FY2014	FY2015	FY2016	FY2017	FYTD18
ADMINISTRATION	129	140	163	162	171
WATER	110	106	104	106	115
WASTEWATER	62	63	67	62	73
TOTAL NUMBER OF STAFF	301	309	334	330	359
Gross Salaries & Wages ($000)	15,532	15,805	16,442	17,210	10,102
Water Customers	41,702	41,274	41,858	42,181	42,688
Staff to Customers Ratio	0.72%	0.75%	0.80%	0.78%	0.84%



SDC Water & Wastewater (Meter Quantity)



Actual Meter Sizes (Inches)	FY 2014	FY 2015	FY 2016	FY 2017	FYTD18
5/8 x 3/4	248	220	239	129	77
1	5	5	7	2	1
1 1/2	1	1	1	1	3
2	3	2	4	2	3
3	1	-	1	-	-
4	-	1	-	-	1
6	-	-	-	1	-
8	1	-	-	-	-
10	-	-	-	-	-
Total SDC by Water	259	229	252	135	85



Actual Meter Sizes (Inches)	FY 2014	FY 2015	FY 2016	FY 2017	FYTD18
5/8 x 3/4	115	124	179	58	39
1	4	3	2	-	1
1 1/2	1	1	1	1	3
2	3	2	3	2	3
3	1	-	1	-	-
4	-	1	-	-	-
6	-	-	-	1	1
8	1	-	-	-	-
10	-	-	-	-	-
Total SDC by Wastewater	125	131	186	62	47

GUAM WATERWORKS AUTHORITY
APRIL 30, 2018
FINANCIAL AND RELATED REPORTS
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GUAM WATERWORKS AUTHORITY
Balance Sheet
April 30, 2018

SCHEDULE A

ASSETS	Unaudited April 30, 2018	Audited September 30, 2017	Increase (Decrease)
Current Assets:			
Cash:			
Unrestricted (Schedule G)	3,346,422	4,873,275	(1,526,852)
Restricted Funds (Schedule G)	70,446,434	65,124,400	5,322,033
Accounts Receivable Trade, Net of Allowance for Doubtful Receivables of $13,386,932 at Apr 30, 2018 and $12,619,034 at Sep 30, 2017	15,531,111	15,450,733	80,378
Other Receivable	2,810,119	8,433,446	(5,623,327)
Materials & Supplies Inventory, Net of Allowance for Obsolescence of $457,370 at Apr 30, 2018 and Sep 30, 2017	2,639,304	2,166,557	472,747
Total Current Assets	94,773,390	96,048,411	(1,275,021)
Property, Plant and Equipment			
Utility plant in service:			
Water system	328,363,021	327,484,191	878,829
Wastewater system	287,216,056	286,394,940	821,117
Non-utility property	19,042,110	18,938,255	103,854
Total property	634,621,187	632,817,387	1,803,800
Less Accumulated Depreciation	(296,730,554)	(286,043,580)	(10,686,974)
Land	1,163,298	1,110,998	52,300
Construction Work in Progress	159,330,343	111,695,887	47,634,456
Property, Plant and Equipment, net	498,384,273	459,580,691	38,803,582
Other noncurrent assets			
Restricted cash (Schedule G)	200,010,796	236,550,002	(36,539,206)
Investments (Schedule G)	48,086,827	41,042,038	7,044,788
Other Prepaid Expenses	291,179	551,128	(259,949)
Total other noncurrent assets	248,388,801	278,143,169	(29,754,368)
TOTAL ASSETS	841,546,465	833,772,271	7,774,194
Deferred outflows of resources:			
Debt defeasance due to bond refunding	13,468,204	1,695,981	11,772,223
Deferred outflows from pension	4,655,717	4,943,777	(288,060)
Total Assets and Deferred Outflows of Resources	**859,670,386**	**840,412,029**	**19,258,358**
LIABILITIES AND NET ASSETS			
Current Liabilities:			
Current maturities of long-term debt			
-Series 2010 Revenue Bond	1,725,000	1,725,000	-
-Series 2014 Refunding Bond	3,475,000	3,475,000	-
-Series 2017 Refunding Bond	295,000	-	295,000
-Notes Payable	2,873,988	3,037,569	(163,581)
Accounts Payable -Trade	4,149,073	5,390,256	(1,241,183)
Interest Payable	8,722,124	6,656,499	2,065,624
Accrued Payroll and Employee Benefits	2,073,277	2,604,471	(531,195)
Accrued Annual Leave	1,729,291	1,729,291	-
Current portion of employee annual leave	567,057	567,057	-
Contractors' Payable	8,622,608	13,950,287	(5,327,679)
Customer and Other Deposits	1,985,411	2,014,435	(29,024)
Other Liabilities	72,817	72,772	45
Total Current Liabilities	36,290,645	41,222,638	(4,931,992)
Long Term Debt, less current maturities			
Series 2010 Revenue Bond	3,695,000	112,800,000	(109,105,000)
Series 2013 Revenue Bond	172,630,000	172,630,000	-
Series 2014 Refunding Bond	72,520,000	72,520,000	-
Series 2016 Revenue Bond	143,310,000	143,310,000	-
Series 2017 Refunding Bond	107,365,000	-	107,365,000
Unamortized Discount - Bond 2010	-	(1,867,525)	1,867,525
Unamortized Discount - Bond 2013	(1,308,943)	(1,338,751)	29,808
Unamortized Premium - Bond 2014	4,649,169	4,804,694	(155,524)
Unamortized Premium - Bond 2016	16,908,603	17,262,975	(354,372)
Unamortized Premium - Bond 2017	12,664,079	-	12,664,079
Notes Payable	3,982,421	5,533,918	(1,551,497)
Unfunded Ret Liability (GASB 67/68)	49,243,798	49,243,798	-
Employee Annual Leave, Less Current Portion	783,992	783,992	-
TOTAL LIABILITIES	622,733,765	616,905,739	5,828,026
Deferred inflows of resources:			
Deferred inflows from pension	564,514	564,514	-
Total Liabilities and Deferred Inflows of Resources	623,298,279	617,470,253	5,828,026
Net Assets	**236,372,107**	**222,941,776**	**13,430,331**
Total Liabilities, Deferred Inflows of Resources and Net Assets	**859,670,386**	**840,412,029**	**19,258,358**

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited) **SCHEDULE B**
Comparative Budget vs. Actual for the period ending April 30, 2018

	Month to Date		Variance
	Budget April-18	Actual (Unaudited) April-18	Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	5,743,160	5,717,778	(25,382)
Wastewater Revenues	3,228,257	3,207,613	(20,645)
Legislative Surcharge	291,896	287,605	(4,292)
Other Revenues	57,638	40,764	(16,874)
System Development Charge	46,136	56,404	10,268
Total Operating Revenues	9,367,087	9,310,164	(56,923)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	721,113	693,782	27,331
Power Purchases	1,057,997	1,275,268	(217,271)
Total Utility Costs	1,779,110	1,969,050	(189,940)
Salaries and Wages	1,625,056	1,218,622	406,434
Pension and Benefits	584,558	412,315	172,244
Total Salaries and Benefits	2,209,614	1,630,936	578,678
Capitalized Labor and Benefits	(208,333)	(208,333)	(0)
Net Salaries and Benefits	2,001,281	1,422,603	578,677
Administrative and General Expenses			
Sludge removal	174,514	113,563	60,951
Chemicals	229,997	183,145	46,852
Materials & Supplies	237,400	129,820	107,580
Transportation	61,370	58,336	3,034
Communications	16,182	17,862	(1,680)
Claims	17,600	21,014	(3,414)
Insurance	97,757	75,480	22,276
Training & Travel	21,814	25,192	(3,377)
Advertising	13,910	18,500	(4,589)
Regulatory Expense	29,086	19,088	9,998
Bad Debts Provision	57,103	109,692	(52,590)
Miscellaneous	115,515	83,816	31,700
Total Administrative and General Expense	1,072,248	855,507	216,741
Depreciation Expense	1,528,175	1,528,175	(0)
Contractual Expense			
Audit & Computer Maint.	78,630	33,241	45,389
Building rental	37,955	37,028	927
Equipment rental	57,375	19,168	38,207
Legal	4,167	600	3,567
Laboratory	64,752	39,875	24,877
Other	130,363	177,106	(46,743)
Total Contractual Expense	373,241	307,017	66,224
Retiree Supp. Annuities and health care costs	240,008	236,940	3,068
Contribution to Government of Guam	49,500	49,833	(333)
Total Retiree Benefits	289,508	286,774	2,735
Total Operating Expenses	7,043,563	6,369,126	674,437
Earnings (Loss) from Operations	2,323,524	2,941,038	(617,514)
Interest Income-2010/13/14/16/17 Series Bond	15,727	247,291	231,564
Interest Income-Other Funds	2,935	42,752	39,817
Interest Income-SDC	2,414	440	(1,974)
Interest Expense- 2010/13/14/16/17 Series Bond	(2,625,587)	(2,180,531)	445,056
Interest Expense- ST BOG	(33,288)	(37,606)	(4,318)
Federal Expenditures	(51,332)	(43,562)	7,770
Loss on Asset Disposal	-	-	-
AFUDC	625,000	625,000	-
Amortization of Discount, Premium and Issuance Costs	(61,861)	(77,542)	(15,681)
Defeasance due to bond refunding	(15,218)	(12,444)	2,775
Deferred outflows from pension	(105,281)	-	105,281
Prior Year Adjustment	-	-	-
Total non-operating revenues (expenses)	(2,246,492)	(1,436,201)	810,290
Net Income (Loss) before capital contributions	77,032	1,504,836	1,427,804
Capital Contributions			
Grants from US Government	873,108	1,213,886	340,778
Grants from GovGuam & Others	-	20,084	20,084
Other Contributions	-	-	-
Total Capital Contributions	873,108	1,233,970	360,862
Change in Net Assets	950,140	2,738,806	1,788,666
Debt Service Calculation			
Earnings From Operations	2,323,524	2,941,038	
System Development Charge	(46,136)	(56,404)	
Retiree COLA	49,500	49,833	
Interest/Investment Income	2,935	42,752	
Depreciation	1,528,175	1,528,175	
Balance Available for Debt Service per Section 6.12	3,857,998	4,505,394	
Working Capital Reserve Available for Debt Service	935,321	935,321	
Transfer to Working Capital- Debt Service Reserve	(150,000)	-	
Transfer to Working Capital- O&M Reserve	(266,667)	-	
Balance Available for Debt Service inclusive of reserves	4,376,652	5,440,715	
Debt Service			
Principal	433,333	433,333	
Interest	2,063,402	1,794,910	
Total	2,496,736	2,228,243	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.55	2.02	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.75	2.44	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited)
Comparative for the period ending April 30, 2018 and 2017

SCHEDULE C

	Month to Date		Variance
	Actual (Unaudited) April-18	Actual (Audited) April-17	Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	5,717,778	5,331,404	386,375
Wastewater Revenues	3,207,613	3,099,528	108,085
Legislative Surcharge	287,605	267,269	20,336
Other Revenues	40,764	36,293	4,471
System Development Charge	56,404	72,662	(16,258)
Total Operating Revenues	9,310,164	8,807,155	503,009
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	693,782	609,094	(84,688)
Power Purchases	1,275,268	1,006,355	(268,913)
Total Utility Costs	1,969,050	1,615,449	(353,601)
Salaries and Wages	1,218,622	1,413,608	194,987
Pension and Benefits	412,315	490,400	78,086
Total Salaries and Benefits	1,630,936	1,904,009	273,072
Capitalized Labor and Benefits	(208,333)	(262,516)	(54,183)
Net Salaries and Benefits	1,422,603	1,641,493	218,890
Administrative and General Expenses			
Sludge removal	113,563	140,487	26,924
Chemicals	183,145	174,001	(9,144)
Materials & Supplies	129,820	128,788	(1,032)
Transportation	58,336	53,744	(4,592)
Communications	17,862	10,884	(6,978)
Claims	21,014	22,151	1,137
Insurance	75,480	90,603	15,123
Training & Travel	25,192	23,055	(2,137)
Advertising	18,500	8,988	(9,512)
Regulatory Expense	19,088	24,134	5,046
Bad Debts Provision	109,692	109,700	8
Miscellaneous	83,816	71,997	(11,819)
Total Administrative and General Expense	855,507	858,530	3,023
Depreciation Expense	1,528,175	1,402,038	(126,137)
Contractual Expense			
Audit & Computer Maint.	33,241	76,901	43,660
Building rental	37,028	36,557	(471)
Equipment rental	19,168	59,374	40,206
Legal	600	414	(186)
Laboratory	39,875	10,627	(29,249)
Other	177,106	156,747	(20,359)
Total Contractual Expense	307,017	340,619	33,602
Retiree Supp. Annuities and health care costs	236,940	231,895	(5,045)
Contribution to Government of Guam	49,833	49,500	(333)
Total Retiree Benefits	286,774	281,395	(5,378)
Total Operating Expenses	6,369,126	6,139,525	(229,602)
Earnings (Loss) from Operations	2,941,038	2,667,630	273,407
Interest Income-2010/13/14/16/17 Series Bond	247,291	65,354	181,937
Interest Income-Other Funds	42,752	10,032	32,720
Interest Income-SDC	440	1,060	(620)
Interest Expense- 2010/13/14/16/17 Series Bond	(2,180,531)	(2,220,744)	40,213
Interest Expense- ST BOG	(37,606)	(43,736)	6,131
Federal Expenditures	(43,562)	(42,501)	(1,061)
Loss on Asset Disposal	-	(81,105)	81,105
AFUDC	625,000	1,172,241	(547,241)
Amortization of Discount, Premium and Issuance Costs	(77,542)	61,861	(139,403)
Defeasance due to bond refunding	(12,444)	(15,218)	2,775
Deferred outflows from pension	-	-	-
Prior Year Adjustment	-	(26,756)	26,756
Total non-operating revenues (expenses)	(1,436,201)	(1,119,512)	(316,689)
Net Income (Loss) before capital contributions	1,504,836	1,548,118	(43,282)
Capital Contributions			
Grants from US Government	1,213,886	1,815,921	(602,036)
Grants from GovGuam & Others	20,084	1,664	18,420
Other Contributions	-	-	-
Total Capital Contributions	1,233,970	1,817,586	(583,616)
Change in Net Assets	2,738,806	3,365,704	(626,897)
Debt Service Calculation			
Earnings From Operations	2,941,038	2,667,630	
System Development Charge	(56,404)	(72,662)	
Retiree COLA	49,833	49,500	
Interest/Investment Income	42,752	10,032	
Depreciation	1,528,175	1,402,038	
Balance Available for Debt Service per Section 6.12	4,505,394	4,056,538	
Working Capital Reserve Available for Debt Service	935,321	932,134	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	5,440,715	4,988,672	
Debt Service			
Principal	433,333	420,000	
Interest	1,794,910	1,626,858	
Total	2,228,243	2,046,858	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	2.02	1.98	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	2.44	2.44	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited) **SCHEDULE D**
Comparative Budget vs. Actual for the period ending April 30, 2018

	Year to Date			Variance
	Budget April-18	Encumbered April-18	Actual (Unaudited) April-18	Favorable / (Unfavorable)
OPERATING REVENUES				
Water Revenues	40,202,121		38,631,697	(1,570,423)
Wastewater Revenues	22,597,801		22,465,756	(132,045)
Legislative Surcharge	2,043,272		1,985,275	(57,997)
Other Revenues	403,466		246,006	(157,460)
System Development Charge	322,951		711,484	388,534
Total Operating Revenues	65,569,611		64,040,219	(1,529,391)
OPERATING AND MAINTENANCE EXPENSES				
Water Purchases	5,047,792		5,208,325	(160,533)
Power Purchases	7,405,978		8,392,038	(986,059)
Total Utility Costs	12,453,770		13,600,363	(1,146,592)
Salaries and Wages	11,375,392		10,101,787	1,273,605
Pension and Benefits	4,091,908		3,335,466	756,442
Total Salaries and Benefits	15,467,300		13,437,253	2,030,047
Capitalized Labor and Benefits	(1,458,333)		(1,572,614)	114,280
Net Salaries and Benefits	14,008,966		11,864,639	2,144,327
Administrative and General Expenses				
Sludge removal	1,221,598		938,370	283,228
Chemicals	1,434,978		1,353,358	81,619
Materials & Supplies	1,945,298	308,512	1,068,296	568,490
Transportation	366,593	50,860	293,647	22,086
Communications	113,273		108,187	5,086
Claims	77,700	10,000	53,223	14,477
Insurance	733,296		530,061	203,235
Training & Travel	152,699	10,891	74,791	67,017
Advertising	97,370		65,793	31,578
Regulatory Expense	154,604		132,754	21,850
Bad Debts Provision	399,718		767,853	(368,135)
Miscellaneous	808,608	49,990	589,607	169,011
Total Administrative and General Expense	7,505,737	430,253	5,975,941	1,099,543
Depreciation Expense	10,697,223		10,697,225	(2)
Contractual Expense				
Audit & Computer Maint.	565,412	111,103	310,503	143,807
Building rental	265,685		272,193	(6,508)
Equipment rental	401,622		487,712	(86,090)
Legal	29,167		4,200	24,967
Laboratory	438,261	109,837	231,798	96,626
Other	912,542		1,176,060	(263,518)
Total Contractual Expense	2,612,689	220,940	2,482,466	(90,717)
Retiree Supp. Annuities and health care costs	1,680,058		1,660,875	19,183
Contribution to Government of Guam	346,500		348,833	(2,333)
Total Retiree Benefits	2,026,558	-	2,009,708	16,850
Total Operating Expenses	49,304,943	651,193	46,630,341	2,023,409
Earnings (Loss) from Operations	16,264,668		17,409,878	494,017
Interest Income-2010/13/14/16/17 Series Bond	110,086		1,311,744	1,201,658
Interest Income-Other Funds	20,543		211,787	191,244
Interest Income-SDC	16,900		22,821	5,921
Interest Expense- 2010/13/14/16/17 Series Bond	(18,379,111)		(15,355,198)	3,023,913
Interest Expense- ST BOG	(233,017)		(256,497)	(23,480)
Federal Expenditures	(359,325)		(303,748)	55,577
Loss on Asset Disposal	-		-	-
AFUDC	4,375,000		4,375,000	-
Amortization of Discount, Premium and Issuance Costs	(433,026)		(124,585)	308,440
Defeasance due to bond refunding	(106,529)		(87,105)	19,424
Deferred outflows from pension	(736,964)		(288,060)	448,905
Prior Year Adjustment	-		7,336	7,336
Total non-operating revenues (expenses)	(15,725,443)		(10,486,504)	5,238,939
Net Income (Loss) before capital contributions	539,225		6,923,374	5,732,956
Capital Contributions				
Grants from US Government	6,111,757		6,349,141	237,383
Grants from GovGuam & Others	-		157,817	157,817
Other Contributions	-		-	-
Total Capital Contributions	6,111,757		6,506,958	395,200
Change in Net Assets	6,650,982		13,430,332	6,128,156
Debt Service Calculation				
Earnings From Operations	16,264,668		17,409,878	
System Development Charge	(322,951)		(711,484)	
Retiree COLA	346,500		348,833	
Interest/Investment Income	20,543		211,787	
Depreciation	10,697,223		10,697,225	
Balance Available for Debt Service per Section 6.12	27,005,983		27,956,239	
Working Capital Reserve Available for Debt Service	6,547,247		6,524,939	
Transfer to Working Capital- Debt Service Reserve	(1,050,000)		-	
Transfer to Working Capital- O&M Reserve	(1,866,667)		-	
Balance Available for Debt Service inclusive of reserves	30,636,564		34,481,178	
Debt Service				
Principal	3,033,333		3,033,333	
Interest	14,443,815		12,564,370	
Total	17,477,149		15,597,703	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.55		1.79	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.75		2.21	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited)
Comparative for the period ending April 30, 2018 and 2017

SCHEDULE E

	Year to Date		Variance
	ACTUAL (Unaudited) April-18	Actual (Audited) April-17	Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	38,631,697	37,319,825	1,311,872
Wastewater Revenues	22,465,756	21,696,694	769,062
Legislative Surcharge	1,985,275	1,870,882	114,393
Other Revenues	246,006	254,050	(8,044)
System Development Charge	711,484	508,635	202,849
Total Operating Revenues	64,040,219	61,650,086	2,390,134
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	5,208,325	4,263,656	(944,669)
Power Purchases	8,392,038	7,044,486	(1,347,551)
Total Utility Costs	13,600,363	11,308,143	(2,292,220)
Salaries and Wages	10,101,787	9,895,259	(206,527)
Pension and Benefits	3,335,466	3,432,802	97,336
Total Salaries and Benefits	13,437,253	13,328,062	(109,191)
Capitalized Labor and Benefits	(1,572,614)	(1,837,610)	(264,996)
Net Salaries and Benefits	11,864,639	11,490,451	(374,187)
Administrative and General Expenses			
Sludge removal	938,370	983,408	45,038
Chemicals	1,353,358	1,218,008	(135,351)
Materials & Supplies	1,068,296	901,514	(166,783)
Transportation	293,647	376,211	82,564
Communications	108,187	76,187	(32,001)
Claims	53,223	155,057	101,834
Insurance	530,061	634,219	104,158
Training & Travel	74,791	161,382	86,591
Advertising	65,793	62,914	(2,878)
Regulatory Expense	132,754	168,941	36,187
Bad Debts Provision	767,853	767,898	45
Miscellaneous	589,607	503,976	(85,631)
Total Administrative and General Expense	5,975,941	6,009,713	33,772
Depreciation Expense	10,697,225	9,814,265	(882,960)
Contractual Expense			
Audit & Computer Maint.	310,503	538,307	227,804
Building rental	272,193	255,896	(16,298)
Equipment rental	487,712	415,617	(72,095)
Legal	4,200	2,898	(1,302)
Laboratory	231,798	74,386	(157,413)
Other	1,176,060	1,097,230	(78,830)
Total Contractual Expense	2,482,466	2,384,334	(98,132)
Retiree Supp. Annuities and health care costs	1,660,875	1,623,268	(37,607)
Contribution to Government of Guam	348,833	346,500	(2,333)
Total Retiree Benefits	2,009,708	1,969,768	(39,941)
Total Operating Expenses	46,630,341	42,976,674	(3,653,668)
Earnings (Loss) from Operations	17,409,878	18,673,412	(1,263,534)
Interest Income-2010/13/14/16/17 Series Bond	1,311,744	457,481	854,264
Interest Income-Other Funds	211,787	70,223	141,565
Interest Income-SDC	22,821	7,418	15,403
Interest Expense- 2010/13/14/16/17 Series Bond	(15,355,198)	(15,545,206)	190,009
Interest Expense- ST BOG	(256,497)	(306,154)	49,657
Federal Expenditures	(303,748)	(297,510)	(6,238)
Loss on Asset Disposal	-	(567,732)	567,732
AFUDC	4,375,000	8,205,687	(3,830,687)
Amortization of Discount, Premium and Issuance Costs	(124,585)	433,025	(557,610)
Defeasance due to bond refunding	(87,105)	(106,529)	19,424
Deferred outflows from pension	(288,060)	-	(288,060)
Prior Year Adjustment	7,336	(187,290)	194,626
Total non-operating revenues (expenses)	(10,486,504)	(7,836,587)	(2,649,917)
Net Income (Loss) before capital contributions	6,923,374	10,836,825	(3,913,451)
Capital Contributions			
Grants from US Government	6,349,141	12,711,450	(6,362,310)
Grants from GovGuam & Others	157,817	11,651	146,166
Other Contributions	-	-	-
Total Capital Contributions	6,506,958	12,723,101	(6,216,143)
Change in Net Assets	13,430,332	23,559,926	(10,129,594)
Debt Service Calculation			
Earnings From Operations	17,409,878	18,673,412	
System Development Charge	(711,484)	(508,635)	
Retiree COLA	348,833	346,500	
Interest/Investment Income	211,787	70,223	
Depreciation	10,697,225	9,814,265	
Balance Available for Debt Service per Section 6.12	27,956,239	28,395,765	
Working Capital Reserve Available for Debt Service	6,524,939	6,524,939	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	34,481,178	34,920,704	
Debt Service			
Principal	3,033,333	2,940,000	
Interest	12,564,370	11,388,009	
Total	15,597,703	14,328,009	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.79	1.98	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	2.21	2.44	

SCHEDULE F

Bond Compliance

		($$$) Per Indenture	As of 4/30/18 ($$$) Bond 2013/2014/2016/2017
• Operation and Maintenance Fund-BOG	*Equivalent to 55 days of the annual O&M budget less depreciation*	$10.5M	$10.5M
• Bond Reserve Fund - US Bank	*Fully funded- Principal and Interest (Bond Series 2010, 2013, 2014 Refunding and 2016)*	$34.9M	$34.9M
• Operation, Maintenance, Renewal and Replacement Reserve Fund-BOG Trust	*Equivalent to 1/4 of the annual O&M budget & CIP budget to be funded in 5 years ($2M/year)*	$17.4M	$17.4M
• Capital Improvement Fund	*Balance remaining in the Revenue Fund after the foregoing deposits*	$3.9K	$5.6K

GUAM WATERWORKS AUTHORITY
Restricted and Unrestricted Cash Summary
FY 2018

SCHEDULE G

Description	Unaudited April 30, 2018	Audited September 30, 2017	Increase (Decrease)
UNRESTRICTED			
Change Fund	2,000	2,000	-
Petty Cash	5,000	5,000	-
BOG - General Fund	3,309,383	4,836,236	(1,526,852)
BOG - PRN Payroll	30,039	30,039	-
Sub-total Unrestricted	3,346,422	4,873,275	(1,526,852)
RESTRICTED			
BOG - On Line Payment	8,708	-	8,708
BOG - Sweep Account	207	-	207
Bank of Hawaii	163,770	133,931	29,839
First Hawaiian Bank	8,352	10,261	(1,909)
Bank Pacific	9,779	15,825	(6,046)
Community First FCU	2,919	3,448	(530)
BOG - Customer Refunds	1,854,367	1,831,426	22,941
Bank Pacific - Surcharge	475,891	278,142	197,749
Bank Pacific - Escrow Deposit	659,756	666,140	(6,384)
BOG Emergency Reserve Fund	6,126	6,122	4
BOG - Revenue Trust	533,724	201,614	332,110
BOG Revenue Trust Fund	7,422,662	7,782,227	(359,565)
BOG Capital Improvement Fund-Bond	5,598	5,598	0
BOG Capital Improvement Revenue Fund	4,193,955	-	4,193,955
BOG-O & M Reserve	13,583,288	13,516,540	66,747
BOG-Debt Service Reserve	11,273,230	11,217,733	55,497
BOG-CAPEX Reserve	15,537,694	15,462,869	74,825
BOG Sewer Hookup Revolving Fund	64,767	63,590	1,178
BOG Subord. Sec. Fund	859,233	859,233	-
BOG Operation and Maintenance Fund	3,083,482	3,083,482	-
	59,747,509	55,138,182	4,609,327
BOG - SDC Deposit	3,448,925	1,486,219	1,962,707
BOG - SDC CDs	7,250,000	8,500,000	(1,250,000)
Total Restricted	70,446,434	65,124,400	5,322,033
Reserve Funds			
BOG Series 05 OMRRRF Fund	17,423,213	17,423,213	-
BOG Series 13 Construction Fund	50,984,673	74,461,765	(23,477,093)
BOG Series 14 Refunding Construction Fund	737,399	771,281	(33,882)
BOG Series 16 Construction Fund	122,226,749	132,811,449	(10,584,699)
BOG Series 16 Cap Int Fund	-	1,782,982	(1,782,982)
BOG Series 17 Refunding Construction Fund	8,591,217	9,299,311	(708,094)
BOG Series 17 Refunding COI Fund	47,545	-	47,545
Total Restricted - Held by Trustee	200,010,796	236,550,002	(36,539,206)
USB Series 2013 Debt Service Fund	3,124,124	2,336,754	787,370
USB Series 2013 Debt Service Reserve Fund	12,031,688	12,031,688	-
USB Series 2014 Refunding Debt Service Fu	4,142,670	1,796,559	2,346,112
USB Series 2014 Refunding Debt Service Re	7,789,571	7,707,602	81,969
USB Series 2016 Debt Service Fund	2,391,990	130	2,391,860
USB Series 2016 Debt Service Reserve Fund	7,594,589	7,582,725	11,864
USB Series 2010 Debt Service Fund	1,539,811	2,020,121	(480,310)
USB Series 2017 Refunding Debt Service Re	7,566,460	7,566,460	-
USB Series 2017 Debt Service Fund	1,905,924	-	1,905,924
Total Investments	48,086,827	41,042,038	7,044,788
Total Restricted and Unrestricted Cash	321,890,478	347,589,716	(25,699,237)

SCHEDULE H

Guam Waterworks Authority **Statement of Cash Flows (Unaudited)** **FY 2018**	**YTD** **Apr-18**
Increase (decrease) in cash	
Cash flows from operating activities:	
Cash received from trade and others	63,371,655
Cash payments to suppliers/contractors for goods and services	(22,744,897)
Cash payments to employees for services	(15,341,263)
Net cash provided by operating activities	25,285,495
Cash flows from capital and related financing activities:	
Contributed capital received (grants)	11,617,891
Acquisition of utility plant	(50,453,486)
Repayment of Long Term Debt	7,186,516
Interest expense	(15,753,563)
Net cash provided by (used in) capital and related financing activities	(47,402,641)
Cash flows from investing activities:	
Transfers from (to) restricted fund	19,043,942
Interest income received	1,546,352
Net cash provided by investing activities	20,590,294
Net increase (decrease) in cash	(1,526,852)
Unrestricted cash at beginning of the period	4,873,275
Unrestricted cash at end of period	3,346,423
Reconciliation of operating loss to net cash provided by operating activities:	
Operating Income (loss)	16,228,964
Adjustments to reconcile to net cash provided by operating activities:	
Depreciation expense	10,697,225
Other Expense/income	1,055,913
(Increase) decrease in assets:	
Accounts receivable	(639,586)
Materials and supplies inventory	(472,747)
Other Assets	259,949
Increase (decrease) in liabilities:	
Accounts payable, Contractors, Retention & Escrow Deposit	(1,284,050)
Accrued payroll	(531,195)
Customer deposits	(28,979)
Net cash provided by operating activities	25,285,495

Guam Waterworks Authority
Accounts Receivable - Government
As of April 30, 2018

SCHEDULE I

Customer Name	No of Accounts	Current Balance	AGING 31-60 days	61-90 days	91-120 days	Over 120 days	Outstanding Bal.
Guam Int'l Airport Authority	8	43,763	39,519	52,685	45,217	143,014	324,198
Guam Memorial Hospital Authority	3	39,356	34,786	-	-	-	74,142
Port Authority of Guam	1	37,242	31,271	-	-	-	68,514
Guam Power Authority	20	47,298	112	-	-	-	47,409
Guam Community College	3	5,083	12,618	11,500	8,771	8,877	46,848
University of Guam	2	13,776	-	-	-	-	13,776
Guam Housing & Urban Renewal Authority	5	1,262	-	-	-	92	1,354
Guam Housing Corporation	1	39	-	-	-	-	39
AUTONOMOUS AGENCIES	**43**	**187,818**	**118,306**	**64,185**	**53,988**	**151,983**	**576,280**
Department of Parks & Recreation	16	41,400	46,439	239,341	27,309	217,078	571,568
Department of Education	51	178,786	187,948	47,986	8,800	123,847	547,367
Department of Public Health & Social Services	3	1,407	3,154	1,044	-	101,613	107,218
Department of Corrections	2	39,157	43,322	17,124	-	-	99,603
Mayors' Council of Guam	41	12,661	931	20	-	-	13,611
Office of the Governor	2	6,739	-	-	-	-	6,739
Guam Fire Department	7	6,340	-	-	-	-	6,340
Department of Public Works	10	2,490	3,552	-	-	-	6,042
Department of Youth Affairs	1	23	650	3,294	-	-	3,967
Sanctuary Inc.	1	3,120	-	-	-	-	3,120
Guam Police Department	2	2,519	-	-	-	-	2,519
Department of Agriculture	2	2,201	-	-	-	-	2,201
Department of Military Affairs/GUARNG	1	2,115	-	-	-	-	2,115
Guam Solid Waste Authority	2	987	-	-	-	-	987
Division of Senior Citizens, DPH&SS	2	372	135	152	64	-	723
Department of Chamorro Affairs	1	401	-	-	-	-	401
Department of Customs & Quarantine	1	389	-	-	-	-	389
Department of Mental Health and Substance Abuse	1	278	-	-	-	-	278
Department of Agriculture - Fisheries	1	90	134	-	-	-	224
Guam Veterans Affairs Office	2	218	-	-	-	-	218
The Office of the Dededo Mayor	1	167	-	-	-	-	167
Guam Public Library	3	144	-	-	-	-	144
Merizo Mayor	1	25	26	-	-	-	50
LINE AGENCIES	**154**	**302,030**	**286,290**	**308,960**	**36,174**	**442,538**	**1,375,992**
TOTAL April 30, 2018	**197**	**489,848**	**404,596**	**373,146**	**90,161**	**594,521**	**1,952,272**
TOTAL September 30, 2017	**253**	**715,578**	**442,522**	**169,120**	**72,476**	**396,347**	**1,796,043**
% INCREASE/ (DECREASE)	**-22%**	**-32%**	**-9%**	**121%**	**24%**	**50%**	**9%**

GUAM WATERWORKS AUTHORITY
2013 Series Bond Project Status
As of April 30,2018

SCHEDULE J

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 04/30/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 04/30/18
Santa Rita Springs Booster Pump Rehab Phase II	$ 100,000	$ 100,000	77,400	22,600	$ 100,000	$ -	$ 22,600
"A" Series Well Transmission Line	$ 400,000	$ 400,000	369,846	(0)	$ 369,846	$ 30,154	$ 30,154
Water Booster Pump Station	$ 6,000,000	$ 1,861,000	1,656,428	23,536	$ 1,679,964	$ 181,036	$ 204,572
Meter Replacement Program		$ 999,000	996,532	-	$ 996,532	$ 2,468	$ 2,468
Barrigada Tank Repair/Replacement	$ 6,000,000	$ 4,987,000	4,924,959	62,041	$ 4,987,000	$ 0	$ 62,041
Leak Detection	$ 100,000	$ 20,000	16,916	-	$ 16,916	$ 3,084	$ 3,084
Potable Water System Planning	$ 800,000	$ 624,000	603,390	20,610	$ 624,000	$ -	$ 20,610
Implement Ground Water Rule	$ 1,000,000	$ 1,000,000	1,000,000	-	$ 1,000,000	$ -	$ -
Deep Well Rehabilitation	$ 800,000	$ 200,000	189,930	10,071	$ 200,000	$ (0)	$ 10,070
New Deep Wells at Down Hard	$ 2,000,000	$ 810,000			$ -	$ 810,000	$ 810,000
Master Meters	$ 4,000,000	$ 784,000	531,188	180,872	$ 712,060	$ 71,940	$ 252,812
Ugum Water Treatment Plant Intake	$ 1,000,000	$ 982,000	578,858	280,943	$ 859,801	$ 122,199	$ 403,142
Water Wells	$ 4,200,000	$ 4,200,000	2,284,474	745,555	$ 3,030,029	$ 1,169,971	$ 1,915,527
Water Distribution System	$ 12,000,000	$ 11,151,000	6,718,325	4,194,128	$ 10,912,453	$ 238,547	$ 4,432,675
Pressure Zone Realignment /	$ 1,000,000	$ 431,000	336,036	1,074	$ 337,110	$ 93,890	$ 94,964
Mechanical/Electrical Equipment	$ 430,000	$ 430,000	328,686	98,112	$ 426,798	$ 3,202	$ 101,314
Water Reservoir Internal/External	$ 800,000	$ -			$ -	$ -	$ -
Water System Reservoirs 2005 Improvements	$ 21,000,000	$ 13,878,000	10,857,217	3,020,784	$ 13,878,000	$ (0)	$ 3,020,783
Ugum Water Treatment Plant Reservoir	$ 7,000,000	$ 90,000			$ -	$ 90,000	$ 90,000
Agana Heights & Chaot Tanks	$ 4,500,000	$ 3,280,000	241,603	1,088,684	$ 1,330,287	$ 1,949,713	$ 3,038,397
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 13,500,000	$ 11,605,000	5,398,068	6,206,932	$ 11,605,000	$ 0	$ 6,206,932
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 8,000,000	$ -			$ -	$ -	$ -
Assessment of maloiloi Elevetad & Yigo Elevated	$ 500,000	$ 485,117	461,813	23,304	$ 485,117	$ -	$ 23,304
Fire Hydrant Replacement Program	$ -	$ -			$ -	$ -	$ -
Wastewater System Planning	$ 800,000	$ 651,000	550,968	99,933	$ 650,900	$ 100	$ 100,032
Lift Station Upgrades	$ 5,000,000	$ 946,000	562,785	363	$ 563,149	$ 382,852	$ 383,215
Wastewater Collection System Repl/Rehab	$ 6,500,000	$ 780,000	555,848	104,465	$ 660,314	$ 119,687	$ 224,152
Baza Gardens STP Replacement		$ 3,114,883	969,594	2,145,275	$ 3,114,869	$ 15	$ 2,145,290
Facilities Plan/Design for Umatac-Merizo WWTP		$ 473,000	341,226	30,473	$ 371,699	$ 101,301	$ 131,774
Agat/Santa Rita STP Replacement	$ 19,000,000	$ 67,200,000	43,563,454	23,636,545	$ 67,200,000	$ 0	$ 23,636,546
Agana WWTP Interim Measures		$ 673,000	611,247	61,753	$ 673,000	$ (0)	$ 61,753
Umatac Merizo Replacement	$ 2,000,000	$ -			$ -	$ -	$ -
Wastewater Pump Station Electrical Upgrade	$ 620,000	$ 620,000	91,348	8,513	$ 99,861	$ 520,139	$ 528,652
Electrical Upgrade - Water Wells	$ 1,500,000	$ 1,500,000	1,480,769	19,230	$ 1,500,000	$ 0	$ 19,231
Electrical Upgrade - Water Booster	$ 325,000	$ 2,000			$ -	$ 2,000	$ 2,000
Electrical Upgrade -Water Booster	$ 350,000	$ 200,000	977	-	$ 977	$ 199,023	$ 199,023
Electrical Upgrade - Other Water	$ 250,000	$ 150,000	60,700	-	$ 60,700	$ 89,300	$ 89,300
SCADA Improvements – Phase 3	$ 1,850,000	$ 923,000	427,949	294,410	$ 722,359	$ 200,641	$ 495,051
SCADA Improvements – Phase 4	$ 500,000	$ -			$ -	$ -	$ -
Laboratory Modernization	$ 1,500,000	$ 1,173,000	1,163,037	8,428	$ 1,171,465	$ 1,535	$ 9,963
Land Survey	$ 2,000,000	$ 2,000	1,038	15	$ 1,053	$ 948	$ 963
General Plant Improvements / Water	$ 2,000,000	$ 2,600,000	1,265,043	1,176,695	$ 2,441,737	$ 158,263	$ 1,334,957
Allowance for COI							$ 275,005
Interest Earned							$ 602,317
Total Construction Fund	**$ 139,325,000**	**$ 139,325,000**	**$ 89,217,649**	**$ 43,565,345**	**$ 132,782,994**	**$ 6,542,006**	**$ 50,984,672**

PUC's Docket 14-04 dated February 25, 2014

GUAM WATERWORKS AUTHORITY
2014 Series Refunded Bond Project Status
As of April 30,2018

SCHEDULE K

PROJECT NAME	ORIGINAL APPROVED PROJECT	ADJUSTED PROJECT COST	EXPENDITURES AS OF 04/30/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	20% PUC AS OF 04/30/18	Construction fund balance AS OF 04/30/18
Agana Treatment Plant	$ 10,475,000	$ 11,065,512	11,065,512	$ -	$ 11,065,512	$ (0)	$ 2,095,000	$ (0)
Agana Outfall	$ 5,030,000	$ 10,127,198	10,127,198	$ -	$ 10,127,198	$ 0	$ 1,006,000	$ 0
Northern District (Outfall)	$ 4,700,000	$ 10,251,423	10,251,423	$ -	$ 10,251,423	$ 0	$ 940,000	$ 0
Northern District WWTP Upgrade		$ 173,681	173,681		$ 173,681	$ -		$ -
Northern Treatment Plant		$ -	-		$ -	$ -		$ -
Baza Gardens Wastewater Treatment Plant Upgrade	$ 500,000	$ 297,177	297,177	$ -	$ 297,177	$ (0)	$ 100,000	$ (0)
Interim Disinfection Facilities	$ 581,000	$ 3,437,311	3,408,599	$ 28,712	$ 3,437,311	$ (0)	$ 116,200	$ 28,712
Electrical Protection	$ 1,000,000	$ 1,512,483	1,512,483.3	$ -	$ 1,512,483	$ (0)	$ 200,000	$ (0)
Well Vulnerability Reduction	$ 600,000	$ 185,522	185,522	$ -	$ 185,522	$ 0	$ 120,000	$ 0
Old Agat Wastewater Collection (I/I Reduction)	$ 2,155,000	$ 1,931,659	1,931,659	$ -	$ 1,931,659	$ (0)	$ 431,000	$ (0)
Chaot WW Pump Station/Collection System	$ 410,000	$ 399,120	399,120	$ -	$ 399,120	$ -	$ 82,000	$ -
Lift Station Upgrades	$ 230,000	$ 149,895	149,895	$ -	$ 149,895	$ 0	$ 46,000	$ 0
Collection Line Upgrades	$ 200,000	$ 62,755	62,755	$ -	$ 62,755	$ 0	$ 40,000	$ 0
"A" Well Transmission Line	$ 2,413,000	$ 3,833,175	3,818,088	$ 15,087	$ 3,833,175	$ (0)	$ 482,600	$ 15,087
Santa Rita Springs - Booster Pump Rehab.	$ 648,000	$ 306,841	306,841	-	$ 306,841	$ (0)	$ 129,600	$ (0)
Fena Bypass Transmission line		$ 160,913	160,913	$ -	$ 160,913	$ (0)	$ -	$ (0)
Storage Additions	$ 950,000	$ -			$ -	$ -	$ 190,000	$ -
Booster Station Upgrades	$ 390,000	$ 66,734	66,734	$ -	$ 66,734	$ -	$ 78,000	$ -
Mangilao Tank Repair	$ 800,000	$ 398,367	397,933	$ 434	$ 398,367	$ (0)	$ 160,000	$ 434
Ugum Tank Replacement	$ 2,500,000	$ -			$ -	$ -	$ 500,000	$ -
Ugum WTPlant Refurbishment ($1.724,970EPA)		$ 6,588,473	6,531,525	$ 56,949	$ 6,588,473	$ (0)		$ 56,948
Barrigada Tank Repair/Replacement	$ 3,000,000	$ 65,019	65,019	$ -	$ 65,019	$ 0	$ 600,000	$ 0
Water Reservoir Condition Assessment		$ 1,250,000	1,249,227.16	$ 772	$ 1,250,000	$ 0	$ -	$ 773
EarthTech Well Buyout	$ 5,000,000	$ 5,975,000	5,975,000	$ -	$ 5,975,000	$ -	$ 1,000,000	$ -
Water Wastewater Master Plan	$ 4,900,000	$ 4,881,308	4,881,308	$ -	$ 4,881,308	$ 0	$ 980,000	$ 0
Laboratory Modernization	$ 800,000	$ 135,055	135,055	$ -	$ 135,055	$ 0	$ 160,000	$ 0
Land Survey	$ 800,000	$ 577,836	576,134	$ 1,702	$ 577,836	$ 0	$ 160,000	$ 1,702
Ground Water Disinfection		$ -				$ -		$ -
GWUDI Study		$ 262,234	260,430	1,804	$ 262,234	$ -		$ 1,804
Contingency	$ 12,276,023	$ 154	-	$ -	$ -	$ -		$ 732
Vehicles	$ 1,100,000	$ 1,280,000	2,130,305	$ (850,305)	$ 1,280,000	$ -	$ 220,000	$ -
Generation Equipment	$ 700,000	$ 880,000	2,712	$ 877,288	$ 880,000	$ 0		$ 27,033
Leak Detection/Line Replacement	$ 8,200,000	$ 5,988,494	5,988,494	$ -	$ 5,988,494	$ -	$ 1,640,000	$ -
Automated Meter Reading	$ 12,572,063	$ 17,468,359	16,870,522	$ 537,157	$ 17,468,359	$ 0	$ 2,514,413	$ 597,837
Total Construction Fund	$ 82,930,086	$ 89,711,698	$ 88,981,263	$ 669,600	$ 89,711,543	$ 1	$ 13,990,813	$ 731,063
Interest Earned	$ 6,781,612							$ 6,337
Total Project Cost Funding	**$ 89,711,698**	**$ 89,711,698**	**88,981,263**	**$ 669,600**	**$ 89,711,543**	**$ 1**	**$ 13,990,813**	**$ 737,400**

GUAM WATERWORKS AUTHORITY
2016 Series Bond Project Status
As of April 30,2018

SCHEDULE L

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 04/30/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 04/30/18
Water Booster Pump Station	$ 4,139,000	$ 4,139,000			$ -	$ 4,139,000	$ 4,139,000
Meter Replacement Program	$ 4,501,000	$ 4,501,000	27,351	122,648.72	$ 150,000	$ 4,351,000	$ 4,473,649
Barrigada Tank Repair/Replacement	$ 1,013,000	$ 1,013,000		-	$ -	$ 1,013,000	$ 1,013,000
Leak Detection	$ 1,180,000	$ 1,180,000		-	$ -	$ 1,180,000	$ 1,180,000
Potable Water System Planning	$ 2,276,000	$ 2,276,000	257,062	619,231.76	$ 876,294	$ 1,399,706	$ 2,018,938
Deep Well Rehabilitation	$ 250,000	$ 250,000		110,013.00	$ 110,013	$ 139,987	$ 250,000
New Deep Wells at Down Hard	$ 1,190,000	$ 1,190,000			$ -	$ 1,190,000	$ 1,190,000
Master Meters	$ 3,616,000	$ 3,616,000	151,539	-	$ 151,539	$ 3,464,461	$ 3,464,461
Ugum Water Treatment Plant Intake	$ 18,000	$ 18,000			$ -	$ 18,000	$ 18,000
Water Wells	$ 2,500,000	$ 2,500,000			$ -	$ 2,500,000	$ 2,500,000
Water Distribution System	$ 2,049,000	$ 49,000			$ -	$ 49,000	$ 49,000
Pressure Zone Realignment /	$ 1,141,000	$ 1,141,000		668,355.20	$ 668,355	$ 472,645	$ 1,141,000
Mechanical/Electrical Equipment	$ 100,000	$ 100,000			$ -	$ 100,000	$ 100,000
Water Reservoir Internal/External	$ 800,000	$ 800,000			$ -	$ 800,000	$ 800,000
Water System Reservoirs 2005 Improvements	$ 42,350,000	$ 28,350,000	1,923,069	12,345,718.67	$ 14,268,787	$ 14,081,213	$ 26,426,931
Ugum Water Treatment Plant Reservoir	$ 6,410,000	$ -			$ -	$ -	$ -
Water Audit Program & Water Loss Control Plan	$ 1,000,000	$ 1,000,000				$ 1,000,000	$ 1,000,000
Agana Heights & Chaot Tanks	$ 1,220,000	$ 1,220,000		500,000.00	$ 500,000	$ 720,000	$ 1,220,000
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 1,895,000	$ 1,895,000		1,822,132.80	$ 1,822,133	$ 72,867	$ 1,895,000
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 10,500,000	$ 7,409,830		7,300,000.00	$ 7,300,000	$ 109,830	$ 7,409,830
Fire Hydrant Replacement Program	$ 2,000,000	$ 2,000,000			$ -	$ 2,000,000	$ 2,000,000
Wastewater System Planning	$ 349,000	$ 349,000	118,587	194,396.23	$ 312,983	$ 36,017	$ 230,413
Lift Station Upgrades	$ 2,404,000	$ 2,404,000	193,511	321,243.53	$ 514,755	$ 1,889,245	$ 2,210,489
Wastewater Collection System Repl/Rehab	$ 2,920,000	$ 2,920,000		555,478.00	$ 555,478	$ 2,364,522	$ 2,920,000
Baza Gardens STP Replacement	$ 16,700,000	$ 29,400,170	10,030,819	19,174,963.36	$ 29,205,782	$ 194,388	$ 19,369,351
Facilities Plan/Design for Umatac-Merizo WWTP	$ 527,000	$ 527,000	225,258	26,846.67	$ 252,105	$ 274,895	$ 301,742
Agat/Santa Rita STP Replacement	$ 3,000,000	$ 3,000,000	902,989	216,710.57	$ 1,119,700	$ 1,880,300	$ 2,097,011
Agana WWTP Interim Measures	$ 827,000	$ 827,000			$ -	$ 827,000	$ 827,000
Umatac Merizo Replacement	$ 8,000,000	$ 20,800,000	2,803,249	17,799,005.51	$ 20,602,254	$ 197,746	$ 17,996,751
Wastewater Pump Station Electrical Upgrade	$ 100,000	$ 100,000			$ -	$ 100,000	$ 100,000
Electrical Upgrade - Water Wells	$ 650,000	$ 650,000			$ -	$ 650,000	$ 650,000
Electrical Upgrade - Water Booster	$ 323,000	$ 323,000			$ -	$ 323,000	$ 323,000
SCADA Improvements – Phase 3	$ 1,177,000	$ 1,177,000	18,000	599,496.51	$ 617,497	$ 559,503	$ 1,159,000
SCADA Improvements – Phase 4	$ 6,500,000	$ 6,500,000			$ -	$ 6,500,000	$ 6,500,000
Laboratory Modernization	$ 1,127,000	$ 1,127,000	1,127,000	-	$ 1,127,000	$ -	$ -
Land Survey	$ 1,998,000	$ 1,998,000	130,370	1,130,153.37	$ 1,260,524	$ 737,476	$ 1,867,630
General Plant Improvements / Water	$ 2,769,463	$ 2,769,463	647,695	896,065.14	$ 1,543,760	$ 1,225,703	$ 2,121,768
Information Technology Integration Improvements	$ 500,000	$ 500,000	244,068	-	$ 244,068	$ 255,932	$ 255,932
Interest Earned							$ 1,007,853
Total Construction Fund	**$ 140,019,463**	**$ 140,019,463**	**$ 18,800,568**	**$ 64,402,459**	**$ 83,203,027**	**$ 56,816,436**	**$ 122,226,749**

GUAM WATERWORKS AUTHORITY
2017 Series Refunded Bond Project Status
As of April 30,2018

SCHEDULE M

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 04/30/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 04/30/18
Ground Water Disinfection	$ -	$ 500,000	$ 438,141	$ 61,859	$ 500,000	$ 0	$ 61,859
"A" Series Well Transmission Line	$ 600,000	$ 518,144	$ 474,434	$ 1,274	$ 475,709	$ 42,435	$ 43,710
Water Booster Pump Station	$ 500,000	$ 500,000	$ 418,844	$ 81,156	$ 500,000	$ (0)	$ 81,156
Meter Replacement Program	$ 2,500,000	$ 10,300,000	$ 10,255,079	$ 18,549	$ 10,273,628	$ 26,372	$ 44,921
Barrigada Tank Repair/Replacement	$ -	$ 5,450,000	$ 5,442,302	$ 7,698	$ 5,450,000	$ 0	$ 7,698
Leak Detection		$ 200,000	$ -	$ 200,000	$ 200,000	$ -	$ 200,000
Potable Water System Planning	$ 200,000	$ 200,000	$ 180,927	$ 19,073	$ 200,000	$ -	$ 19,073
Implement Ground Water Rule		$ 1,700,000	$ 1,499,464	$ 200,535	$ 1,700,000	$ 1	$ 200,536
Brigade II (Ugum Lift) BPS Upgrade	$ 1,200,000	$ 1,700,000	$ 210,007	$ 127,887	$ 337,895	$ 1,362,105	$ 1,489,993
Deep Well Rehabilitation	$ 548,000	$ 548,000	$ 548,000	$ -	$ 548,000	$ -	$ -
New Deep Wells at Down Hard	$ 3,773,000	$ 638,252	$ 485,743	$ -	$ 485,743	$ 152,509	$ 152,509
Rehabilitation of Asan Springs	$ 900,000	$ 900,000	$ 188,771	$ 152,068	$ 340,838	$ 559,162	$ 711,229
Master Meters	$ 1,600,000	$ 1,600,000	$ 1,421,267	$ 68,690	$ 1,489,957	$ 110,043	$ 178,733
Ugum Water Treatment Plant Intake	$ 3,670,000	$ 700,000	$ 543,615	$ 156,385	$ 700,000	$ -	$ 156,385
Water Wells	$ 2,000,000	$ -	$ -		$ -	$ -	$ -
Water Distribution System	$ 384,000	$ 3,174,748	$ 3,174,748	$ -	$ 3,174,748	$ (0)	$ (0)
Pressure Zone Realignment /	$ 3,550,000	$ -	$ -		$ -	$ -	$ -
Northern System Water Distribution	$ 2,725,000	$ -	$ -	$ -	$ -	$ -	$ -
Central Water Distribution System 2005	$ 1,200,000	$ 900,000	$ 730,182	$ 44,820	$ 775,002	$ 124,998	$ 169,818
Southern Water Distribution System	$ 1,800,000	$ -	$ -		$ -	$ -	$ -
Mechanical/Electrical Equipment	$ 1,360,000	$ 1,200,000	$ 1,079,495	$ 120,505	$ 1,200,000	$ (0)	$ 120,505
Water Reservoir Internal/External	$ 500,000	$ 2,000,000	$ 1,037,655	$ 471,729	$ 1,509,384	$ 490,616	$ 962,345
Water Reservoir Internal/External	$ 2,400,000	$ -	$ -		$ -	$ -	$ -
Water System Reservoirs 2005 Improvements	$ 11,697,000	$ 1,050,000	$ 1,050,000		$ 1,050,000	$ 0	$ 0
Distribution System Upgrades	$ 3,182,000	$ 474,160	$ 456,678	$ 17,481	$ 474,160	$ 0	$ 17,482
Ugum Water Treatment Plant Reservoir	$ 3,672,000	$ -	$ -		$ -	$ -	$ -
Water Audit Program & Water Loss Control Plan		$ 100,000	$ 15,031	$ 63,428	$ 78,459	$ 21,541	$ 84,970
Production Plan / Reduce Navy Purchases		$ 100,000	$ 94,286	$ 5,714	$ 100,000	$ -	$ 5,714
Hydraulic Asessment of Tank		$ 500,000	$ 497,004	$ 2,996	$ 500,000	$ -	$ 2,996
Agana Heights & Chaot Tanks		$ 4,700,000	$ 4,350,014	$ 349,986	$ 4,700,000	$ -	$ 349,986
Tank Major Repair Yigo#1 Mangilao#2 Agat#2		$ 1,900,000	$ 1,750,355	$ 97,659	$ 1,848,013	$ 51,987	$ 149,645
Tank Major Repair Yigo#1 Mangilao#2 Agat#2		$ -			$ -	$ -	$ -
Assessment of malojloj Elevetad & Yigo Elevated		$ 200,000	$ 200,000	$ -	$ 200,000	$ -	$ -
Public Water System Asser Inventory/Condition Assesment		$ 100,000	$ 98,414	$ 1,586	$ 100,000	$ -	$ 1,586
Public Water System GIS & Mapping		$ 50,000	$ 50,000	$ -	$ 50,000	$ -	$ -
Wastewater System Planning	$ 1,500,000	$ 1,500,000	$ 1,468,176	$ 5,824	$ 1,474,000	$ 26,000	$ 31,824
Wastewater Vehicles	$ 235,000	$ 235,000	$ 209,795	$ 25,205	$ 235,000	$ 0	$ 25,205
NDWWTP - Chlorine Tanks	$ 250,000	$ 250,000	$ 250,000		$ 250,000	$ -	$ -
Tumon Bay Sewer Upgrades	$ 100,000	$ -	$ -		$ -	$ -	$ -
Wastewater Collection System Repl/Rehab		$ 1,105,000	$ 723,591	$ 283,287	$ 1,006,878	$ 98,122	$ 381,409
Facilities Plan/Design for Baza Gardens WWTP	$ 1,250,000	$ 1,250,000	$ 1,245,244	$ 4,756	$ 1,250,000	$ -	$ 4,756
Facilities Plan/Design for Agat-Santa Rita WWTP	$ 900,000	$ 899,630	$ 891,702	$ 7,928	$ 899,630	$ -	$ 7,928
Priority 1 Sewer Upgrades – Baza Gardens WWTP	$ 650,000	$ -	$ -		$ -	$ -	$ -
Baza Gardens STP Replacement	$ 3,567,000	$ 1,301,947	$ 316,686	$ 314	$ 317,000	$ 984,947	$ 985,261
Facilities Plan/Design for Umatac Merizo WWTP		$ 900,000	$ 760,845	$ 93,013	$ 853,858	$ 46,142	$ 139,155
Agat/Santa Rita STP Replacement	$ 2,968,000	$ 2,218,000	$ 2,217,314	$ 387	$ 2,217,701	$ 300	$ 686
Northern District WWTP Primary Treatment Upgrades	$ -	$ 11,750,000	$ 11,532,253	$ 211,261	$ 11,743,514	$ 6,486	$ 217,747
Biosolids Management Plan		$ 200,000	$ 196,414	$ 3,586	$ 200,000	$ -	$ 3,586
Agana WWTP Interim Measures	$ -	$ 11,500,000	$ 11,254,925	$ 45,075	$ 11,300,000	$ 200,000	$ 245,075
I&I SSES Southern		$ 800,000	$ 794,722	$ 5,278	$ 800,000	$ (0)	$ 5,278
I&I SSES Central		$ 850,000	$ 794,325	$ 55,675	$ 850,000	$ -	$ 55,675
I&I SSES Northern		$ -			$ -	$ -	$ -
Umatac Merizo Replacement		$ 250,000	$ 247,431	$ 2,569	$ 250,000	$ -	$ 2,569
Northern District WWTP Secondary Treatment Upgrades		$ 1,000,000	$ -	$ 1,000,000	$ 1,000,000	$ -	$ 1,000,000
Well Electrical Protection	$ 26,000	$ -	$ -		$ -	$ -	$ -
SCADA Pilot Project	$ 300,000	$ 61,950	$ 19,812	$ 42,138	$ 61,950	$ (0)	$ 42,138
Electrical Upgrade - Water Wells	$ 3,000,000	$ 354,227	$ 339,948	$ 14,278	$ 354,227	$ 0	$ 14,279
Electrical Upgrade - Water Booster	$ 325,000	$ -	$ -		$ -	$ -	$ -
Electrical Upgrade -Water Booster	$ 350,000	$ -	$ -		$ -	$ -	$ -
Electrical Upgrade - Other Water	$ 250,000	$ -			$ -	$ -	$ -
SCADA Improvements – Phase 1	$ 250,000	$ 250,000	$ 194,849	$ 55,151	$ 250,000	$ -	$ 55,151
SCADA Improvements – Phase 2	$ 1,100,000	$ 1,056,986	$ 1,028,284	$ 28,702	$ 1,056,986	$ -	$ 28,702
SCADA Improvements – Phase 3	$ 2,500,000	$ 24,956	$ 24,956	$ -	$ 24,956	$ 0	$ 0
SCADA Improvements – Phase 4	$ 850,000	$ -	$ -		$ -	$ -	$ -
Laboratory Modernization	$ 1,200,000	$ -	$ -		$ -	$ -	$ -
Land Survey	$ 1,500,000	$ 500,000	$ 471,450	$ 28,237	$ 499,687	$ 313	$ 28,550
General Plant Improvements / Water	$ 14,370,000	$ 7,241,000	$ 7,241,000	$ 0	$ 7,241,000	$ 0	$ 0
Interest Earned							$ 103,395
Total Construction Fund	**$ 87,402,000**	**$ 87,402,000**	**$ 78,914,178**	**$ 4,183,743**	**$ 83,097,921**	**$ 4,304,079**	**$ 8,591,217**

1) PUC's Docket 11-01 $29,000,000.00 dated 09/19/11authorized GWA for reallocation
2) PUC's Docket 11-01 Reallocation of $23,246,000.00 dated 07/30/12
3) PUC's Dockect Reallocation dated February 2013

GUAM WATERWORKS AUTHORITY
Schedule of Series 2013, 2014 Refunding, 2016 and 2017 Refunding Bond Bank Accounts
As of April 30, 2018

SCHEDULE N

	4/30/2018
BANK OF GUAM	
BOG - Revenue Account	7,422,662
BOG - Operations and Maintenance Reserve	3,083,482
BOG - Operations, Maintenance, Renewal and Replacement Reserve Fund	17,423,213
BOG - Capital Improvement Fund	4,199,553
BOG - O & M Reserve	13,583,288
BOG - Debt Service Reserve	11,273,230
BOG - CAPEX Reserve	15,537,694
Total BOG Bank Account Balance	**72,523,121**
Series 2013 Bond:	
BOG - Construction Fund	50,984,673
USB - Debt Service Fund	3,124,124
USB - Debt Service Reserve Fund	12,031,688
Total Series 2013 Bond Bank Balance	**66,140,484**
Series 2014 Refunding Bond:	
BOG - Construction Fund	737,399
USB - Debt Service Fund	4,142,670
USB - Debt Service Reserve Fund	7,789,571
Total Series 2014 Refunding Bond Bank Balance	**12,669,640**
Series 2016 Bond:	
BOG - Construction Account	122,226,749
BOG - Capitalized Interest Fund	-
USB - Debt Service Fund	2,391,990
USB - Debt Service Reserve Fund	7,594,589
Total Series 2016 Bond Bank Balance	**132,213,329**
Series 2017 Refunding Bond:	
BOG - Construction Account	8,591,217
BOG - Cost of Issuance Fund	47,545
USB - Debt Service Fund	3,445,735
USB - Debt Service Reserve Fund	7,566,460
Total Series 2017 Refunding Bond Bank Balance	**19,650,956**

GUAM WATERWORKS AUTHORITY
"Better Water, Better Lives."
Gloria B. Nelson Public Service Building| 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Issues for Decision

Resolution No. 28-FY2018
Relative to Approval of the Construction Contract for the SCADA System for Water and Wastewater Facilities Phase A-1

What is the project's objective and is it necessary and urgent?
GWA is developing and installing a SCADA System to monitor the operations of its water and wastewater systems, and to promptly alert operators when a fault or alarm condition occurs. This project primarily focuses on installing industrial controls, field instrumentation, and communications equipment to enable connectivity between 19 GWA assets with the Central SCADA Server located in Fadian through the use of GPA's TropOS wireless mesh network to enable continuous monitoring of these assets.

An important objective of the project is to implement SCADA for several of the GWA facilities that are part of Phase A-1 project so as to enhance GWA's ability to "monitor flow, pressure, tank levels and chlorine throughout the services area…" as required in Court Order Paragraph 28.

Where is the location?
Well A-01, Well A-03, Well A-05, Well A-06, Well A-12, Well A-23, Well A-25, Well A-29, Well A-30, Well A-31, Well A-32, Well M-17B, Well M-20A, Chaot Reservoir, Agana Heights Reservoir, Agana Heights Booster Pump Station, Hagatna Wastewater Treatment Plant, Fujita Sewer Pump Station, and Route 16 Sewer Pump Station.

How much will it cost?
GWA Management seeks CCU approval to enter into contract with G4S in the amount of Two Million Six Hundred Twenty-One Thousand Sixteen Dollars and Eighty-Five Cents ($2,621,016.85). GWA Management also seeks approval of a 10% contingency in the amount of Two Hundred Sixty-Two Thousand One Hundred One Dollars ($262,101.00) which will bring the total authorized funding amount to a maximum of Two Million Eight Hundred Eighty-Three Thousand One Hundred Seventeen Dollars and Eighty-Five Cents ($2,883,117.85).

When will it be completed?
The contract time is 365 calendar days.

What is the funding source?
The funding source will be bond funds from CIP EE 09-09, SCADA Improvement – Phase 4.

The RFP/BID responses (if applicable):
Three (3) out of twelve (12) interested parties submitted bids. Please refer to EXHIBIT A - Bid Abstract and EXHIBIT B - Recommendation Memo for details.

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

RESOLUTION NO. 28-FY2018

RELATIVE TO APPROVAL OF THE CONSTRUCTION CONTRACT FOR THE SCADA SYSTEM FOR WATER AND WASTEWATER FACILITIES PHASE A-1

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities ("CCU") has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority ("GWA"); and

WHEREAS, the Guam Waterworks Authority ("GWA") is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA was successful in completing the SCADA Master Plan with the intent to lay out a coordinated, prioritized sequence of SCADA Improvements to enhance operations, provide reliable and efficient systems, maintain desired service levels, contribute to protection of health and safety, and achieve regulatory compliance; and

WHEREAS, the GWA SCADA Master Plan proposed to accomplish the SCADA implementation in 3 main phases; and

WHEREAS, SCADA Phase A will consist of the central SCADA infrastructure and high priority facilities as identified by GWA Operations and Management at the time of the SCADA Master Plan development, which includes 210 GWA sites; and

WHEREAS, SCADA Phase B will consist of adding second tier high priority facilities as identified by GWA Operations and Management at the time of the SCADA Master Plan development, and integrate these locations into the SCADA system; and

//

WHEREAS, SCADA Phase C will consist of adding additional instruments and equipment to the facilities already implemented with SCADA under phase A and B; and

WHEREAS, due to funding limitations GWA is further separating Phase A into multiple implementations, with Phase A-1 consisting of 19 GWA facilities; and

WHEREAS, the implementation of SCADA for several of the GWA facilities that are part of Phase A-1 project are directly linked to the Court Order Paragraph 28 wherein the completion of the SCADA project will enhance GWA's ability to "monitor flow, pressure, tank levels and chlorine throughout the services area…"; and

WHEREAS, GWA has advertised the Invitation for Bid (IFB-02-ENG-2018) soliciting bid proposals from experienced, responsible, and responsive bidders to the SCADA System for Water and Wastewater Facilities Phase A-1 Project; and

WHEREAS, IFB packages were picked up by 12 interested parties, from which GWA received bid proposals from 3 of the 12 parties before the bid proposal deadline (see EXHIBIT A – Abstract of Bids); and

WHEREAS, GWA engineering analyzed all bid proposals received on March 28th, 2018 and determined that G4S Security Systems (Guam), Inc. ("G4S"), who submitted the lowest bid, as being the responsive and responsible bidder and met all the bid requirements set forth by GWA (see EXHIBIT B – Recommendation Memorandum); and

WHEREAS, GWA Management finds G4S's bid proposal of Two Million Six Hundred Twenty-One Thousand Sixteen Dollars and Eighty-Five Cents ($2,621,016.85) to be acceptable (See EXHIBIT C – Bid Proposal); and

WHEREAS, GWA Management seeks CCU approval to enter into contract with G4S for IFB-02-ENG-2018 in the amount of Two Million Six Hundred Twenty-One Thousand Sixteen Dollars and Eighty-Five Cents ($2,621,016.85) along with 10% contingency in the amount of Two Hundred Sixty-Two Thousand One Hundred One Dollars ($262,101.00) to bring

the total requested authorized funding amount to a maximum of Two Million Eight Hundred Eighty-Three Thousand One Hundred Seventeen Dollars and Eighty-Five Cents ($2,883,117.85); and

WHEREAS, GWA Management further seeks CCU approval to inform the PUC of the project intent given its relation to the Court Order Paragraph 28, and the contract amount of Two Million Eight Hundred Eighty-Three Thousand One Hundred Seventeen Dollars and Eighty-Five Cents ($2,883,117.85); and

WHEREAS, the funding source for the construction project will be bond funds from CIP EE 09-09, SCADA Improvement – Phase 4; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve and authorize the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the bid proposal submitted by G4S are fair and reasonable.
3. The CCU hereby authorizes the management of GWA to accept the bid proposal from G4S attached hereto as EXHIBIT C, and which is also incorporated into this Resolution in its entirety.
4. The CCU hereby further authorizes the management of GWA to enter into a contract with G4S in the amount of Two Million Six Hundred Twenty-One Thousand Sixteen Dollars and Eighty-Five Cents ($2,621,016.85).
5. The CCU hereby further approves the requested total maximum authorized funding amount of Two Million Eight Hundred Eighty-Three Thousand One Hundred Seventeen Dollars and Eighty-Five Cents ($2,883,117.85), funded by CIP EE 09-09, SCADA Improvement – Phase 4.
6. The CCU hereby further authorizes the management of GWA to inform the PUC of the project intent given its relation to the Court Order Paragraph 28, and the contract amount of Two Million Eight Hundred Eighty-Three Thousand One Hundred Seventeen Dollars and Eighty-Five Cents ($2,883,117.85)

RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

DULY AND REGULARLY ADOPTED, this 22nd day of May 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS **J. GEORGE BAMBA**
Chairperson Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

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EXHIBIT A ORIGINAL

GUAM WATERWORKS AUTHORITY
ABSTRACT OF BIDS

Project Name: **SCADA SYSTEM FOR GWA'S WATER AND WASTEWATER FACILITIES, PHASE A-1**

Bid Opening Date: March 28, 2018
Time: 3:00 p.m.

Project Number: E14-002-BND IFB NO.: IFB-02-ENG-2018

	Bidders Name	Section A-5 Bid Bond	CERTIFICATIONS								Addendum			Lump Sum Bid Price
			Qualifications Statement	Non-Collusion Affidavit	EEO Certification	Non-Segrageted Facilities	Sex Offender Certification	Wage & Benefit Determination	Major Shareholders Affidavit	Special Instructions to Bidders	1	2	3	
1.	CHI CONSTRUCTION INC.	Dongbu Insurance Company Ltd. 15% of total bid amount	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$3,300,000.00
2.	GREG PEREZ	no bid submitted												
3.	USSI	no bid submitted												
4.	G4S	Safeco Insurance Company of America 15% of amount bid	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$2,621,016.91
5.	MOTOROLA SOLUTIONS INC.	no bid submitted												
6.	AYM INTERNATIONAL	no bid submitted												
7.	GPME	no bid submitted												
8.	PACIFIC DEVELOPMENTS	no bid submitted												
9.	HES MICRONESIA	no bid submitted												
10.	JMI EDISON	no bid submitted												
11.	EMC2/HYDROAIRE MECHANICAL SYSTEM	no bid submitted												
12.	KINDEN CORPORATION	Fidelity and Deposit Company of Maryland 15% of total bid amount	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$3,679,000.00
	GWA Estimate													$2,977,458.00

Bids Opened and Read by:
GLORIA P. BENSAN
(Name and Signature)

Tabulated By:
Nicole Ann Villagomez
(Name and Signature)

GWA Procurement Representative:
Victoria Heacock
(Name and Signature)

Witnesses:
3/28/18
03.28.18
3-28-18
3/28/18

EXHIBIT B

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6035

IFB No.: IFB-02-ENG-2018

Project: SCADA SYSTEM FOR GWA'S WATER AND WASTEWATER FACILITIES, PHASE A-I
GWA Project No. E14-002-BND

Subject: Bid Evaluation

Gloria Bensan and Calvin Yam have reviewed the bid proposals submitted by Chi Construction Inc., G4S, and Kinden Corporation for the referenced project submitted on March 28, 2018. All requirements of the bid were all submitted by three proposers.

The apparent low bidder, G4S' bid price as indicated in the Abstract of Bids was $2,621,016.91. Upon tallying bid estimates, G4S Base Bid total for individual locations were all correct, however, minor discrepancies were found in the Summary of Bid wherein total bid amount indicated for five (5) locations were off by few cents. The correct amount would have been **$2,621,016.85.** Upon computation, G4S correct bid price was 12 percent (12%) below Engineer's opinion of probable construction cost and 21% below the next lowest bid received.

Chi Construction Inc. submitted bid price of $3,300,000 which was 10.83% higher than GWA Engineer's estimate. Kinden Corporation submitted the bid price of $3,679,000 which was 23.6% higher than GWA Estimate.

After a meeting with G4S on April 4, 2018 to confirm the bid price and detail scope of work, it is recommended to award the project with G4S to provide construction services for the aforementioned project as their bid proposal was within reason for the scope of the project. Attached bid evaluation details and summarizes the proposed bids from all interested parties.

Gloria P. Bensan

IFB-02-ENG-2018

Addendum 1 – Attachment A

BID FORM

EXHIBIT C

BID RECIPIENT

This Bid is submitted to:

Guam Waterworks Authority
Engineering Division, Room 202
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with Buyer in the form included in the Bidding Documents to furnish the Goods and Special Services as specified or indicated in the Bidding Documents, for the prices and within the times indicated in this Bid, and in accordance with the other terms and conditions of the Bidding Documents.

BIDDER'S ACKNOWLEDGMENTS

Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Buyer.

BIDDER'S REPRESENTATIONS

In submitting this Bid, Bidder represents that:

Bidder has examined and carefully studied the Bidding Documents, the related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.	Addendum Date
01	February 27, 2018
02	March 8, 2018
03	March 14, 2018

Bidder has visited the Point of Destination and site where the Goods are to be installed or Special Services will be provided and become familiar with and is satisfied as to the observable local conditions that may affect cost, progress, or the furnishing of Goods and Special Services, if required to do so by the Bidding Documents, or if, in Bidder's judgment, any local condition may affect cost, progress, or the furnishing of Goods and Special Services.

Bidder is familiar with and is satisfied as to all Laws and Regulations in effect as of the date of the Bid that may affect cost, progress, and the furnishing of Goods and Special Services.

EJCDC P-400, Suggested Bid Form for Procurement Contracts.
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Bidder has carefully studied, considered, and correlated the information known to Bidder; information commonly known to sellers of similar goods doing business in the locality of the Point of Destination and the site where the Goods will be installed or where Special Services will be provided; information and observations obtained from Bidder's visits, if any, to the Point of Destination and the site where the Goods will be installed or Special Services will be provided; and any reports and drawings identified in the Bidding Documents regarding the Point of Destination and the site where the Goods will be installed or where Special Services will be provided, with respect to the effect of such information, observations, and documents on the cost, progress, and performance of Seller's obligations under the Bidding Documents.

Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution (if any) thereof by Engineer is acceptable to Bidder.

The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for furnishing the Goods and Special Services for which this Bid is submitted.

BIDDER'S CERTIFICATIONS

Bidder certifies that:

This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

Bidder has not solicited or induced any individual or entity to refrain from bidding; and

Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Buyer, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Buyer of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Buyer, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process.

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BASIS OF BID

Bidder will furnish the Goods and Special Services in accordance with the Contract Documents for the following price(s):

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IFB-02-ENG-2018 Addendum 1 – Attachment A

Table 1: Base Bid for General Work

Base Bid Description of Work for General Work:
General Work consists of all activities necessary for successful execution of project work.

Item 1.01: Mobilization and Demobilization bid amount shall not exceed (5%) of total base bid amount.
Item 1.02: Insurance and Bonds bid amount shall not exceed (1%) of total base bid amount.
Item 1.06: bid amount shall include Asset Inventory, Operation and Maintenance Data, As-Built Plans, and As-Built Shop Drawings.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
1.00	General Work				
1.01	Mobilization and Demobilization (5%)	LS	131,050.85	1	131,050.85
1.02	Insurance and Bonds (1%)	LS	26,210.17	1	26,210.17
1.03	Permits	LS	39,315.25	1	39,315.25
1.04	Project Management	LS	183,960.47	1	183,960.47
1.05	Training	LS	44,504.04	1	44,504.04
1.06	Documentation	LS	49,441.50	1	49,441.50
1.07	Spare Parts	LS	19,992.70	1	19,992.70
			Base Bid for General Work:		494,474.98

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IFB-02-ENG-2018 Addendum 1 – Attachment A

Table 2: Base Bid for Deep Well A-1

Base Bid Description of Work for Deep Well A-1:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 2.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 2.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 2.04 through 2.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 2.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
2.00	Deep Well A-1				
2.01	Temporary Facilities	LS	0.00	1	0.00
2.02	General Electrical Work	LS	34,048.49	1	34,048.49
2.03	RTU / Control Panel Modification	LS		0	
2.04	Surge Protection Device	LS	545.55	1	545.55
2.05	Power Monitor	LS	2,131.31	1	2,131.31
2.06	Motor Starter (Well Pump)	LS	2,350.04	1	2,350.04
2.07	Motor Starter (Booster Pump)	LS	1,803.22	1	1,803.22
2.08	Control Panel (CP-1)	LS	44,345.54	1	44,345.54
2.09	Level Sensor (Well)	LS	3,990.49	1	3,990.49
2.10	Level Sensor (Fuel)	LS	4,756.03	1	4,756.03
2.11	Temperature Sensor (Well Motor Casing)	LS		0	
2.12	Flow Indicator Transmitter	LS		0	
2.13	Pressure Indicator Transmitter	LS		0	
2.14	Intrusion Switch	LS	464.16	2	928.32
2.15	RTU Antenna	LS	3,224.95	1	3,224.95
2.16	Testing	LS	1,475.13	1	1,475.13
			Base Bid for Deep Well A-1 Subtotal:		99,599.07

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Table 3: Base Bid for Deep Well A-3

Base Bid Description of Work for Deep Well A-3:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 3.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 3.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 3.04 through 3.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 3.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
3.00	Deep Well A-3				
3.01	Temporary Facilities	LS	0.00	1	0.00
3.02	General Electrical Work	LS	34,048.49	1	34,048.49
3.03	RTU / Control Panel Modification	LS		0	
3.04	Surge Protection Device	LS	545.55	1	545.55
3.05	Power Monitor	LS	2,131.31	1	2,131.31
3.06	Motor Starter (Well Pump)	LS	2,350.04	1	2,350.04
3.07	Motor Starter (Booster Pump)	LS	1,803.22	1	1,803.22
3.08	Control Panel (CP-1)	LS	44,345.54	1	44,345.54
3.09	Level Sensor (Well)	LS	3,990.49	1	3,990.49
3.10	Level Sensor (Fuel)	LS	4,756.03	1	4,756.03
3.11	Temperature Sensor (Well Motor Casing)	LS		0	
3.12	Flow Indicator Transmitter	LS		0	
3.13	Pressure Indicator Transmitter	LS		0	
3.14	Intrusion Switch	LS	464.16	2	928.32
3.15	RTU Antenna	LS	3,224.95	1	3,224.95
3.16	Testing	LS	1,475.13	1	1,475.13
			Base Bid for Deep Well A-3 Subtotal:		99,599.07

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Table 4: Base Bid for Deep Well A-5

Base Bid Description of Work for Deep Well A-5:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 4.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 4.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 4.04 through 4.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 4.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
4.00	Deep Well A-5				
4.01	Temporary Facilities	LS	0.00	1	0.00
4.02	General Electrical Work	LS	39,723.09	1	39,723.09
4.03	RTU / Control Panel Modification	LS		0	
4.04	Surge Protection Device	LS	545.55	1	545.55
4.05	Power Monitor	LS	2,131.31	1	2,131.31
4.06	Motor Starter (Well Pump)	LS	2,350.04	1	2,350.04
4.07	Motor Starter (Booster Pump)	LS	1,803.22	1	1,803.22
4.08	Control Panel (CP-1)	LS	44,345.54	1	44,345.54
4.09	Level Sensor (Well)	LS	3,990.49	1	3,990.49
4.10	Level Sensor (Fuel)	LS	4,756.03	1	4,756.03
4.11	Temperature Sensor (Well Motor Casing)	LS		0	
4.12	Flow Indicator Transmitter	LS		0	
4.13	Pressure Indicator Transmitter	LS		0	
4.14	Intrusion Switch	LS	464.16	2	928.32
4.15	RTU Antenna	LS	3,224.95	1	3,224.95
4.16	Testing	LS	1,475.13	1	1,475.13
			Base Bid for Deep Well A-5 Subtotal:		105,273.67

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Table 5: Base Bid for Deep Well A-6

Base Bid Description of Work for Deep Well A-6:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 5.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 5.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 5.04 through 5.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 5.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
5.00	Deep Well A-6				
5.01	Temporary Facilities	LS	0.00	1	0.00
5.02	General Electrical Work	LS	39,723.09	1	39,723.09
5.03	RTU / Control Panel Modification	LS		0	
5.04	Surge Protection Device	LS	545.55	1	545.55
5.05	Power Monitor	LS	2,131.31	1	2,131.31
5.06	Motor Starter (Well Pump)	LS	2,350.04	1	2,350.04
5.07	Motor Starter (Booster Pump)	LS	1,803.22	1	1,803.22
5.08	Control Panel (CP-1)	LS	44,345.54	1	44,345.54
5.09	Level Sensor (Well)	LS	3,990.49	1	3,990.49
5.10	Level Sensor (Fuel)	LS	4,756.03	1	4,756.03
5.11	Temperature Sensor (Well Motor Casing)	LS		0	
5.12	Flow Indicator Transmitter	LS		0	
5.13	Pressure Indicator Transmitter	LS		0	
5.14	Intrusion Switch	LS	464.16	2	928.32
5.15	RTU Antenna	LS	3,224.95	1	3,224.95
5.16	Testing	LS	1,475.13	1	1,475.13
			Base Bid for Deep Well A-6 Subtotal:		105,273.67

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Table 6: Base Bid for Deep Well A-12

Base Bid Description of Work for Deep Well A-12:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 6.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 6.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 6.04 through 6.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 6.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
6.00	Deep Well A-12				
6.01	Temporary Facilities	LS	0.00	1	0.00
6.02	General Electrical Work	LS	39,723.09	1	39,723.09
6.03	RTU / Control Panel Modification	LS		0	
6.04	Surge Protection Device	LS	545.55	1	545.55
6.05	Power Monitor	LS	2,131.31	1	2,131.31
6.06	Motor Starter (Well Pump)	LS	2,350.04	1	2,350.04
6.07	Motor Starter (Booster Pump)	LS	1,803.22	1	1,803.22
6.08	Control Panel (CP-1)	LS	44,345.54	1	44,345.54
6.09	Level Sensor (Well)	LS	3,990.49	1	3,990.49
6.10	Level Sensor (Fuel)	LS	4,756.03	1	4,756.03
6.11	Temperature Sensor (Well Motor Casing)	LS		0	
6.12	Flow Indicator Transmitter	LS		0	
6.13	Pressure Indicator Transmitter	LS		0	
6.14	Intrusion Switch	LS	464.16	2	928.32
6.15	RTU Antenna	LS	3,224.95	1	3,224.95
6.16	Testing	LS	1,475.13	1	1,475.13
			Base Bid for Deep Well A-12 Subtotal:		105,273.67

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Table 7: Base Bid for Deep Wells A-23 and A-25

Base Bid Description of Work for Deep Wells A-23 and Deep Well A25:
Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Location of existing equipment as indicated on plans may have changed. Contractor is responsible for assessing and accounting for actual condition.

Item 7.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.
Item 7.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.
Items 7.04 through 7.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.
Item 7.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
7.00	Deep Wells A-23 and A-25				
7.01	Temporary Facilities	LS	0.00	1	0.00
7.02	General Electrical Work	LS	79,445.66	1	79,445.66
7.03	RTU / Control Panel Modification	LS	28,343.38	2	56,686.76
7.04	Surge Protection Device	LS	510.42	2	1,020.84
7.05	Power Monitor	LS	2,096.19	2	4,192.38
7.06	Motor Starter (Well Pump)	LS		0	
7.07	Motor Starter (Booster Pump)	LS		0	
7.08	Control Panel (CP-1)	LS		0	
7.09	Level Sensor (Well)	LS	3,955.37	2	7,910.74
7.10	Level Sensor (Fuel)	LS	4,848.56	1	4,848.56
7.11	Well Motor Temperature Sensor	LS		0	
7.12	Flow Indicator Transmitter	LS		0	
7.13	Pressure Indicator Transmitter	LS		0	
7.14	Intrusion Switch	LS	467.87	3	1,403.61
7.15	RTU Antenna	LS	3,317.48	1	3,317.48
7.16	Testing	LS	2,880.03	1	2,880.03
	Base Bid for Deep Wells A-23 and A-25 Subtotal:				161,706.06

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Table 8: Base Bid for Deep Well A-29

Base Bid Description of Work for Deep Well A-29:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 8.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 8.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 8.04 through 8.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 8.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
8.00	Deep Well A-29				
8.01	Temporary Facilities	LS	0.00	1	0.00
8.02	General Electrical Work	LS	39,723.09	1	39,723.09
8.03	RTU / Control Panel Modification	LS		0	
8.04	Surge Protection Device	LS	545.55	1	545.55
8.05	Power Monitor	LS	2,131.31	1	2,131.31
8.06	Motor Starter (Well Pump)	LS	2,350.04	1	2,350.04
8.07	Motor Starter (Booster Pump)	LS	1,803.22	1	1,803.22
8.08	Control Panel (CP-1)	LS	44,345.54	1	44,345.54
8.09	Level Sensor (Well)	LS	3,990.49	1	3,990.49
8.10	Level Sensor (Fuel)	LS	4,756.03	1	4,756.03
8.11	Temperature Sensor (Well Motor Casing)	LS		0	
8.12	Flow Indicator Transmitter	LS		0	
8.13	Pressure Indicator Transmitter	LS		0	
8.14	Intrusion Switch	LS	464.16	2	928.32
8.15	RTU Antenna	LS	3,224.95	1	3,224.95
8.16	Testing	LS	1,475.13	1	1,475.13
			Base Bid for Deep Well A-29 Subtotal:		105,273.67

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Table 9: Base Bid for Deep Well A-30

Base Bid Description of Work for Deep Well A-30:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 9.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 9.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 9.04 through 9.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 9.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
9.00	Deep Well A-30				
9.01	Temporary Facilities	LS	0.00	1	0.00
9.02	General Electrical Work	LS	39,723.09	1	39,723.09
9.03	RTU / Control Panel Modification	LS		0	
9.04	Surge Protection Device	LS	560.69	1	560.69
9.05	Power Monitor	LS	2,146.46	1	2,146.46
9.06	Motor Starter (Well Pump)	LS		0	
9.07	Motor Starter (Booster Pump)	LS	1,818.37	1	1,818.37
9.08	Control Panel (CP-1)	LS	44,360.69	1	44,360.69
9.09	Level Sensor (Well)	LS	4,005.64	1	4,005.64
9.10	Level Sensor (Fuel)	LS	4,771.18	1	4,771.18
9.11	Temperature Sensor (Well Motor Casing)	LS		0	
9.12	Flow Indicator Transmitter	LS		0	
9.13	Pressure Indicator Transmitter	LS		0	
9.14	Intrusion Switch	LS	418.36	5	2,091.80
9.15	RTU Antenna	LS	3,240.09	1	3,240.09
9.16	Testing	LS	1,490.28	1	1,490.28
			Base Bid for Deep Well A-30 Subtotal:		104,208.29

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Table 10: Base Bid for Deep Well A-31

Base Bid Description of Work for Deep Well A-31:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 10.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 10.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 10.04 through 10.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 10.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
10.00	Deep Well A-31				
10.01	Temporary Facilities	LS	0.00	1	0.00
10.02	General Electrical Work	LS	39,723.09	1	39,723.09
10.03	RTU / Control Panel Modification	LS		0	
10.04	Surge Protection Device	LS	557.45	1	557.45
10.05	Power Monitor	LS	2,143.22	1	2,143.22
10.06	Motor Starter (Well Pump)	LS		0	
10.07	Motor Starter (Booster Pump)	LS	1,815.13	1	1,815.13
10.08	Control Panel (CP-1)	LS	44,357.45	1	44,357.45
10.09	Level Sensor (Well)	LS	4,002.39	1	4,002.39
10.10	Level Sensor (Fuel)	LS	4,767.93	1	4,767.93
10.11	Temperature Sensor (Well Motor Casing)	LS		0	
10.12	Flow Indicator Transmitter	LS		0	
10.13	Pressure Indicator Transmitter	LS		0	
10.14	Intrusion Switch	LS	470.11	2	940.22
10.15	RTU Antenna	LS	3,236.85	1	3,236.85
10.16	Testing	LS	1,487.04	1	1,487.04
			Base Bid for Deep Well A-31 Subtotal:		103,030.77

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Table 11: Base Bid for Deep Well A-32

Base Bid Description of Work for Deep Well A-32:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 11.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 11.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 11.04 through 11.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 11.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
11.00	Deep Well A-31				
11.01	Temporary Facilities	LS	0.00	1	0.00
11.02	General Electrical Work	LS	39,723.09	1	39,723.09
11.03	RTU / Control Panel Modification	LS		0	
11.04	Surge Protection Device	LS	545.55	1	545.55
11.05	Power Monitor	LS	2,131.31	1	2,131.31
11.06	Motor Starter (Well Pump)	LS	2,350.04	1	2,350.04
11.07	Motor Starter (Booster Pump)	LS	1,803.22	1	1,803.22
11.08	Control Panel (CP-1)	LS	44,345.54	1	44,345.54
11.09	Level Sensor (Well)	LS	3,990.49	1	3,990.49
11.10	Level Sensor (Fuel)	LS	4,756.03	1	4,756.03
11.11	Temperature Sensor (Well Motor Casing)	LS		0	
11.12	Flow Indicator Transmitter	LS		0	
11.13	Pressure Indicator Transmitter	LS		0	
11.14	Intrusion Switch	LS	464.16	2	928.32
11.15	RTU Antenna	LS	3,224.95	1	3,224.95
11.16	Testing	LS	1,475.13	1	1,475.13
			Base Bid for Deep Well A-32 Subtotal:		105,273.67

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Table 12: Base Bid for Deep Well M-17B

Base Bid Description of Work for Deep Well M-17B:
Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 12.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.
Item 12.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.
Items 12.04 through 12.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.
Item 12.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
12.00	Deep Well M-17B				
12.01	Temporary Facilities	LS	0.00	1	0.00
12.02	General Electrical Work	LS	39,723.09	1	39,723.09
12.03	RTU / Control Panel Modification	LS	28,363.47	1	28,363.47
12.04	Surge Protection Device	LS	530.51	1	530.51
12.05	Power Monitor	LS	2,116.28	1	2,116.28
12.06	Motor Starter (Well Pump)	LS		0	
12.07	Motor Starter (Booster Pump)	LS	1,788.19	1	1,788.19
12.08	Control Panel (CP-1)	LS		0	
12.09	Level Sensor (Well)	LS	6,053.36	1	6,053.36
12.10	Level Sensor (Fuel)	LS	4,741.00	1	4,741.00
12.11	Temperature Sensor (Well Motor Casing)	LS		0	
12.12	Flow Indicator Transmitter	LS	13,982.20	1	13,982.20
12.13	Pressure Indicator Transmitter	LS	1,145.63	2	2,291.26
12.14	Intrusion Switch	LS	456.64	2	913.28
12.15	RTU Antenna	LS	3,209.91	1	3,209.91
12.16	Testing	LS	1,460.10	1	1,460.10
	Base Bid for Deep Well M-17B Subtotal:				105,172.65

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IFB-02-ENG-2018 Addendum 1 – Attachment A

Table 13: Base Bid for Deep Well M-20A

Base Bid Description of Work for Deep Well M-20A:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 13.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 13.03: bid amount shall include all work relating to the modification of existing control panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 13.04 through 13.15: bid amounts shall include all work relating to proper installation and function in accordance with the design.

Item 13.16: bid amount shall include all work relating to checking and testing per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
13.00	Deep Well M-20A				
13.01	Temporary Facilities	LS	0.00	1	0.00
13.02	General Electrical Work	LS	39,723.09	1	39,723.09
13.03	RTU / Control Panel Modification	LS	28,376.99	1	28,376.99
13.04	Surge Protection Device	LS	544.04	1	544.04
13.05	Power Monitor	LS	2,129.80	1	2,129.80
13.06	Motor Starter (Well Pump)	LS		0	
13.07	Motor Starter (Booster Pump)	LS		0	
13.08	Control Panel (CP-1)	LS		0	
13.09	Level Sensor (Well)	LS	6,066.88	1	6,066.88
13.10	Level Sensor (Fuel)	LS	4,754.52	1	4,754.52
13.11	Temperature Sensor (Well Motor Casing)	LS		0	
13.12	Flow Indicator Transmitter	LS	13,995.72	1	13,995.72
13.13	Pressure Indicator Transmitter	LS	1,152.39	2	2,304.78
13.14	Intrusion Switch	LS	415.02	5	2,075.10
13.15	RTU Antenna	LS	3,223.44	1	3,223.44
13.16	Testing	LS	1,473.62	1	1,473.62
	Base Bid for Deep Well M-20A Subtotal:				104,667.98

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Table 14: Base Bid for Agana Heights Reservoir and Booster Pump Station

Base Bid Description of Work for Agana Heights Reservoir and Booster Pump Station:
Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 14.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.
Item 14.03: bid amount shall include all work relating to the modification of existing RTU panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.
Items 14.04 through 14.05: bid amounts shall include labor, material and related appurtenances needed for proper installation and function in accordance with the design.
Item 14.06: bid amount shall include all checking and testing work per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
14.00	Agana Heights Booster Pump Station				
14.01	Temporary Facilities	LS	0.00	1	0.00
14.02	General Electrical Work	LS	34,048.49	1	34,048.49
14.03	RTU / Control Panel Modification	LS	28,426.05	1	28,426.05
14.04	Power Monitor	LS	2,178.86	1	2,178.86
14.05	Intrusion Switch	LS	435.35	4	1,741.40
14.06	Testing	LS	1,522.68	1	1,522.68
	Base Bid for Agana Heights Reservoir and Booster Pump Station Subtotal:				67,917.48

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IFB-02-ENG-2018 Addendum 1 – Attachment A

Table 15: Base Bid for Chaot Reservoir

Base Bid Description of Work for Chaot Reservoir:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 15.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 15.03: bid amount shall include all work relating to the modification of existing RTU panel which may include control relays, terminal blocks, signal isolators, powers supplies, batteries, operator terminals, etc. per design requirements.

Items 15.04 through 15.06: bid amounts shall include labor, material and related appurtenances needed for proper installation and function in accordance with the design.

Item 15.07: bid amount shall include all checking and testing work per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
15.00	Chaot Reservoir Station				
15.01	Temporary Facilities	LS	0.00	1	0.00
15.02	General Electrical Work	LS	34,048.49	1	34,048.49
15.03	RTU / Control Panel Modification	LS	28,416.82	1	28,416.82
15.04	Level Sensor (Fuel)	LS	4,794.35	1	4,794.35
15.05	Intrusion Switch	LS	416.29	6	2,497.74
15.06	RTU Antenna	LS	3,263.27	1	3,263.27
15.07	Testing	LS	1,513.46	1	1,513.46
			Base Bid for Chaot Reservoir Subtotal:		74,534.13

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IFB-02-ENG-2018 Addendum 1 – Attachment A

Table 16: Base Bid for Hagatna STP

Base Bid Description of Work for Hagatna STP:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 16.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Items 16.03 through 16.06: bid amounts shall include labor, material and related appurtenances needed for proper installation and function in accordance with the design.

Item 16.07: bid amount shall include all checking and testing work per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
16.00	Hagatna STP				
16.01	Temporary Facilities	LS	0.00	1	0.00
16.02	General Electrical Work	LS	34,048.49	1	34,048.49
16.03	Power Monitor	LS	2,120.72	2	4,241.44
16.04	RTU Panel	LS	44,487.13	1	44,487.13
16.05	Level Sensor (Fuel)	LS	6,209.98	1	6,209.98
16.06	RTU Antenna	LS	3,366.54	1	3,366.54
16.07	Testing	LS	2,983.77	1	2,983.77
			Base Bid for Hagatna STP Subtotal:		95,337.35

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IFB-02-ENG-2018 Addendum 1 – Attachment A

Table 17: Base Bid for Route 16 SPS

Base Bid Description of Work for Route 16 SPS:
Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 17.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.
Items 17.03 through 17.08: bid amounts shall include labor, material and related appurtenances needed for proper installation and function in accordance with the design.
Item 17.09: bid amount shall include all checking and testing work per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
17.00	Route 16 SPS				
17.01	Temporary Facilities	LS	0.00	1	0.00
17.02	General Electrical Work	LS	371,910.59	1	371,910.59
17.03	MSB/MCC	LS	59,000.35	1	59,000.35
17.04	RTU / Instrument Control Panel	LS	44,480.47	1	44,480.47
17.05	45kVA Transformer	LS	11,711.66	1	11,711.66
17.06	Level Sensor (Fuel)	LS	6,203.32	1	6,203.32
17.07	Intrusion Switch	LS	425.30	7	2,977.10
17.08	RTU Antenna	LS	3,359.88	1	3,359.88
17.09	Testing	LS	2,922.42	1	2,922.42
			Base Bid for Route 16 SPS Subtotal:		502,565.79

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IFB-02-ENG-2018 Addendum 1 – Attachment A

Table 18: Base Bid for Fujita SPS

Base Bid Description of Work for Fujita SPS:

Work consists of installing communication equipment, various sensors, control panels, motor starters and related appurtenances. Bid price shall include removing and re-installing, or relocating existing facilities that may be obstructing the installation of the intended work whether or not such removing, relocating, and/or reinstalling work is indicated on plans and spec.

Item 18.02: bid amount shall include all work relating to demolitions, conduits, fittings, wires, boxes, and interconnection work between panels, boxes, devices, and instruments.

Item 18.03: bid amount shall include all labor, material and related appurtenances need for the modification of RTU / Control Panel on site.

Items 18.04 through 18.08: bid amounts shall include labor, material and related appurtenances needed for proper installation and function in accordance with the design.

Item 18.09: bid amount shall include all checking and testing work per specification.

Item No.	Description	Unit	Unit Price [USD]	Qty	Bid Amount [USD]
18.00	Fujita SPS				
18.01	Temporary Facilities	LS	0.00	1	0.00
18.02	General Electrical Work	LS	39,723.09	1	39,723.09
18.03	RTU / Control Panel Modification	LS	28,365.14	1	28,365.14
18.04	Power Monitor	LS	2,117.95	1	2,117.95
18.05	Surge Protection Device	LS	532.19	1	532.19
18.06	Level Sensor (Fuel)	LS	3,977.13	1	3,977.13
18.07	Intrusion Switch	LS	407.67	6	2,446.02
18.08	RTU Antenna	LS	3,211.59	1	3,211.59
18.09	Testing	LS	1,461.77	1	1,461.77
			Base Bid for Fujita SPS Subtotal:		81,834.88

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Table 19: Base Bid Total

Item No.	Description	Unit	Bid Amount [USD]
1.00	General Work		494,474.98
2.00	Deep Well A-1	LS	99,599.07
3.00	Deep Well A-3	LS	99,599.07
4.00	Deep Well A-5	LS	105,273.67
5.00	Deep Well A-6	LS	105,273.67
6.00	Deep Well A-12	LS	105,273.67
7.00	Deep Wells A-23 and A-25	LS	161,706.06
8.00	Deep Well A-29	LS	105,273.67
9.00	Deep Well A-30	LS	104,208.29
10.00	Deep Well A-31	LS	103,030.77
11.00	Deep Well A-32	LS	105,273.67
12.00	Deep Well M-17B	LS	105,172.65
13.00	Deep Well M-20A	LS	104,667.98
14.00	Agana Heights Reservoir and Booster Pump Station	LS	67,917.48
15.00	Chaot Reservoir	LS	74,534.13
16.00	Hagatna STP	LS	95,337.35
17.00	Route 16 SPS	LS	502,565.79
18.00	Fujita SPS	LS	81,834.88
	Base Bid Total:		2,621,016.85

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Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents. Bidder also acknowledges that each unit price includes an amount considered by Bidder to be adequate to cover Bidder's overhead and profit for each separately identified item.

TIME OF COMPLETION

Bidder agrees that the furnishing of Goods and Special Services will conform to the schedule set forth in Article 5 of the Agreement.

Bidder accepts the provisions of the Agreement as to liquidated damages.

ATTACHMENTS TO THIS BID

The following documents are attached to and made a condition of this Bid:

Required Bid security in the form of 15% of the bid price.

List of Proposed Major Suppliers;

Required Bidder Qualification Statement with Supporting Data.

DEFINED TERMS

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

BID SUBMITTAL

This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): n/a

By: _____

(Individual's signature)

Doing business as: _____

Business address: _____

_____

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Phone: _____ Facsimile: _____

E-mail address: _____ _____

A Partnership

Partnership Name: n/a (SEAL)

By: _____

(Signature of general partner - attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

_____

Phone: _____ Facsimile: _____

E-mail address: _____

A Corporation

Corporation Name: G4S Security Systems (Guam), Inc.

State of Incorporation: Guam

Type (General Business, Professional, Service, other): Retail and Service

By: _____

(Signature - attach evidence of authority to sign)

Name (typed or printed): Vincent J. Walker

Title: Country Managing Director

(CORPORATE SEAL)

Attest David W. Dooley _____

(Signature of Corporate Secretary)

Business address: 1851 Army DR

Tamuning, Guam 96913

Phone: (671) 646-2307 Facsimile: (671) 649-7245

E-mail address: guam@gu.g4s.com

A Limited Liability Company (LLC)

LLC Name: n/a

State in which organized: _____

By: _____

(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

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Phone: _____ Facsimile: _____

E-mail address: _____

A Joint Venture

First Joint Venturer Name: n/a (SEAL)

By: _____

(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____

(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone: _____ Facsimile: _____

E-mail address: _____

Phone and Facsimile Number, and Address for receipt of official communications to Joint Venture: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, corporation, and limited liability company that is a party to the joint venture should be in the manner indicated above.)

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GUAM WATERWORKS AUTHORITY
"Better Water, Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Issues for Decision

Resolution No. 29-FY2018
Relative to Approval of Change Order to the Yigo and Astumbo Reservoir Construction Management Contract

What is the project's objective and is it necessary and urgent?
The objective of the change order is to continue the construction management services for the Yigo No. 1, Yigo No. 3, and Astumbo No. 2 reservoir construction project and increase funding to the contract. The continued services are required due to delay by the contractor (Pernix) in completing the project. The Contractor has agreed through a Memorandum of Understanding to pay for the additional construction management cost for the duration of the project until final completion.

The Yigo and Astumbo Tank Construction project is a Court Order project, thus the urgency is to complete the project as soon as possible but maintain adequate Construction Management oversight.

Where is the project located?
The construction management services will be at the Yigo reservoirs site along Route 1 near the entrance to Anderson Air Force Base and the Astumbo reservoir is located off Ysengsong Road on Chalan Paluan.

How much will it cost?
GWA and the construction management firm has negotiated the cost of Four Hundred Eighty-One Thousand Five Hundred Sixty-Three Dollars ($481,563.00) to extend the services from February 19, 2018 to November 21, 2018 for the Astumbo site and from July 31, 2018 to November 21, 2018 for the Yigo site.

When will it be completed?
The construction management services will continue up until November 21, 2018. Should the contractor delay the project past the projected November 21, 2018 deadline, GWA will negotiate to extend the construction management contract. Cost will be covered by the contractor.

What is the funding source?
The funding for this project will be from the bond funds under the line item - PW 09-11 "Water System Reservoirs 2005 Improvements" and PW 12-05 "Tank Major Repair Yigo #1, Mangilao #2, Astumbo #1".

The funding sources will be replenished by money received from the contractor through a deductive change order from the contractor's contract.

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 29-FY2018

RELATIVE TO APPROVAL OF CHANGE ORDER TO THE YIGO AND ASTUMBO RESERVOIR CONSTRUCTION MANAGEMENT CONTRACT

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities ("CCU") has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority ("GWA"); and

WHEREAS, the Guam Waterworks Authority ("GWA") is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA is currently working on critical reservoir projects under the 2011 Court Order ("CO") Paragraph 29 – Storage Tank/Reservoir Repair, Replacement, and Relocation Program; and

WHEREAS, Resolution No. 02–FY2015 and Resolution No. 43-FY2017 authorized the total funding of One Million Eight Hundred Forty-Nine Thousand Eight Hundred Forty Dollars and Thirty Cents ($1,849,840.30) for the construction management services of the Yigo No.1 reservoir, Yigo No. 3 reservoir, Yigo Elevated booster pump station, and Astumbo No. 1 reservoir construction; and

WHEREAS, the original completion date for the Yigo and Astumbo sites are as follows:

- Yigo No. 1 and pump station – October 31, 2017
- Yigo No. 3 – July 31, 2018
- Astumbo No. 1 – October 31, 2017; and

WHEREAS, GWA issued Change Order No. 1 to Change Order No. 3 for construction management services for the Yigo No. 3 reservoir and extension of construction management services to July 29, 2018 for the Yigo site and February 18, 2018 for the Astumbo site due to the Contractor's delay in completing the project; and

WHEREAS, due to continued delay by the Contractor, the revised final completion date is projected to be November 21, 2018; and

WHEREAS, the Contractor has agreed through a Memorandum of Understanding (EXHIBIT A) and a corresponding contract modification, to pay for the additional construction management cost for the period of February 19, 2018 to November 21, 2018 for the Astumbo No. 1 Reservoir site and from July 31, 2018 to November 21, 2018 for the Yigo No. 1 and No. 3 Reservoir site; and

WHEREAS, GWA and GHD has negotiated a price of Four Hundred Eighty-One Thousand Five Hundred Sixty-Three Dollars ($481,563.00) for the construction management services described above (EXHIBIT B); and

WHEREAS, if the project is delayed further than the revised completion date of November 21, 2018 by the Contractor, the Contractor shall cover any additional construction management services and all other associated cost until final completion; and

WHEREAS, GWA management is requesting authorization to increase the funding amount by Four Hundred Eighty-One Thousand Five Hundred Sixty-Three Dollars ($481,563.00) to bring the total authorized funding to Two Million Three Hundred Thirty-One Thousand Four Hundred Three Dollars and Thirty Cents ($2,331,403.30); and

WHEREAS, the funding source to address paying the CM services due to the extended completion date will be from Internal Funded CIP, bond funds from PW 09-11 "Water System Reservoirs 2005 Improvements", and PW 12-05 "Tank Major Repair Yigo No. 1, Mangilao No. 2, and Astumbo No. 1"; and

WHEREAS, money received from the Contractor through a deductive change order from Contractor's contract will be applied to replenish the funding sources used for the additional construction management work; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the fee proposal submitted by GHD are fair and reasonable.
3. The CCU hereby authorizes GWA management to accept the fee proposal of Four Hundred Eighty-One Thousand Five Hundred Sixty-Three Dollars ($481,563.00) from GHD (EXHIBIT B) and execute a Change Order.
4. The CCU hereby approves the total funding amount to Two Million Three Hundred Thirty-One Thousand Four Hundred Three Dollars and Thirty Cents ($2,331,403.30.)
5. The CCU approves the funding sources from Internal Funded CIP; bond funds from PW 09-11: Water System Reservoirs 2005 Improvements; and PW 12-05: Tank Major Repair Yigo No. 1, Mangilao No. 2, and Astumbo No. 1
6. The CCU approves that money received from the Contractor through a deductive change order from the Contractor's contract will be applied to replenish funding sources for the additional construction management work.

RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

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DULY AND REGULARLY ADOPTED, this 22nd day of May 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS **J. GEORGE BAMBA**
Chairperson Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

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EXHIBIT A

Memorandum

16 March 2018

To:	Abhyash Chand, Pernix Guam, LLC Steve Greco, Pernix Guam, LLC Tom Cruz, GWA Brett Railey, GWA Garrett Yeoh, GWA Bryan Ryley, GHD Inc.		
From:	Aaron Sutton, GHD Inc.	**Tel:**	(671) 472-6792
Subject:	Contract Extension Memorandum of Understanding	**Job No:**	W13-001-BND
Project:	PW 12-05 GWA Construction of Yigo and Astumbo Reservoir		

This Memorandum of Understanding ("MOU) supplements the Contract between the Guam Waterworks Authority ("GWA) and Pernix Guam LLC ("Contractor) and will be attached to a Modification to that Contract. This MOU results from the meeting held at the Gloria B. Nelson Public Services Building, 688 Route 15, Mangilao, Guam, Multi-Purpose Room, 3rd Floor, on February 2, 2018 and a subsequent discussion on March 6, 2018 concerning the delays of construction of the Yigo Reservoir No. 1 and Astumbo Reservoir. This MOU details the time extensions and responsibilities for costs as agreed by the GWA and Contractor.

1. **Time Extension** GWA shall extend the Substantial Completion dates for the Astumbo Reservoir, Yigo No. 1 Reservoir and Yigo No. 2 Reservoir to October 15, 2018. The Final Completion of Yigo No. 1 & 2 Reservoirs and Astumbo Reservoir shall be achieved no later than November 21, 2018. With respect to the Astumbo Reservoir, Contractor may use the existing waterline to achieve Substantial Completion but the new waterline must be operational to achieve Final Completion.

   The time extensions above will cover any and all delays in connection with;

   - Change Orders No. 1, 2 and 3,
   - the asbestos abatement (Contract Change Request (CCR) No. 12),
   - the sub-contractor changes from RPG Construction to HSG Co. Ltd.,
   - the construction permit,
   - check valve vaults at both sites (CO No. 2),
   - flexible pipe fittings (CO No. 2 and CCR No. 14),

GHD I c. 865 S Marine Corps Drive Suite 202 Tamuning Guam 96913
T 1 671 472 6792 **F** 1 671 477 6229 **E** guam@ghd.com **W** www.ghd.com

- vault size increases (CCR No. 6, 10 and 23),
- Victaulic fittings (CCR No. 13),
- washdown pipe change (CCR No. 16),
- louver and door hardware change (CCR No. 19),
- conduits to the existing tank (CCR No. 20),
- stainless steel pump controller enclosure (CCR No. 22),
- changes resulting from Requests For Information up to and including RFI No. 73 for Yigo and RFI No. 22 for Astumbo.

Contract change requests after the date of the Contract Modification including this MOU may be considered to the extent allowed by the Contract Documents provided they are considered reasonable and justified in the opinion of GWA.

2. **Costs** GWA will carry the costs for extended Construction Management services through February 17, 2018 at the Astumbo Reservoir site. From February 18, 2018 to the date of Final Completion, costs for Construction Management services at the Astumbo site shall be borne by the Contractor.

   GWA will carry the costs for extended Construction Management services through July 31, 2018 at the Yigo No. 1 and 2 Reservoir sites. From July 31, 2018 to the date of Final Completion, costs for Construction Management services at the Yigo sites shall be borne by the Contractor.

   The additional Construction Management services shall be invoiced to GWA by GHD directly, on a time and material basis, and are estimated to be in the total amount of $8,000 to $9,500 per week per site for the Astumbo and Yigo sites. GWA and Contractor agree that the total Construction Management costs shall not exceed $9,500 per week per site, or $19,000 per week for both sites. On a monthly basis, GWA shall provide a copy of the GHD invoice to Contractor and GWA may deduct the applicable portion of the CM's invoice amount as a deductive change order under the Contract with Pernix.

   GWA's agreement to cover the additional costs for Construction Management services through February 17, 2018 (Astumbo) and July 31, 2018 (Yigo) in lieu of assessing liquidated damages is contingent upon Final Completion of all work no later than November 21, 2018. Any delay in the Final Completion dates beyond November 21, 2018 will be considered eligible for liquidated damages at $4,500 per day per reservoir per site at the discretion of GWA.

   In the event that GWA is assessed fines for not complying with the November 11, 2011 Order For Preliminary Relief of the Federal District Court of Guam in Civil Case No. 02-00035 with respect to completion of the Astumbo and Yigo No. 1 and No. 2 reservoirs, Contractor shall reimburse GWA for the full amount of such fines.

   Except as revised by this MOU and related Change Order No. 4, all other terms and conditions of the Contract as revised by Change Orders No. 1, 2 and 3, including the provisions for inclement weather in Paragraph 1.10 of Section 01311, shall continue to apply.

By signing this MOU, all parties are agreeing to the above conditions.

Abhyash Chand
Pernix Guam, Inc.
(Contractor)

Thomas Cruz, PE
Guam Waterworks Authority
(Owner)

Aaron Sutton, PE
Construction Manager, **GHD Inc.**

Digitally signed by Bryan J. Ryley
DN: cn=Bryan J. Ryley,o=Bryan J. Ryley,c=United States,ou=US Construction Management,ou=GHD Inc.,e=bryan.ryley@ghd.com
Reason: I am the author of this document
Location: Guam
Date: 2018-03-16 15:10:00

Bryan Ryley
Construction Manager, **GHD Inc.**

Cc: Brett Railey, GWA
Garrett Yeoh, GWA
Steve Greco, Pernix

EXHIBIT B

April 20, 2018

Mr. Tom Cruz , P.E.
Chief Engineer
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913

RE: Change Proposal 04 (CP-4) for Construction Management Services for PW12-05 GWA Yigo and Astumbo Replacement Reservoirs, GWA Project W13-001-BND
Additional CM Services for Astumbo and Yigo No. 1 and 2 Reservoirs Construction Due to Construction Delay

Dear Mr. Cruz:

GHD is pleased to submit this proposal for an amendment to our Scope of Work and Fee for the above referenced project. This scope of work defines the construction management services that will be provided by GHD Inc. and their subconsultants for additional CM services due to construction delays of Astumbo and Yigo No. 1 and 2 Reservoirs. The additional scope for **CP-04** as discussed with GWA is detailed below. The original project scope will be charged on a time and material (T&M) basis per the fees in the table below.

SCOPE OF WORK

General: GHD shall provide additional Construction Management (CM) Services for the nine (8) month period of February 19, 2018 through October 15, 2018, with final completion and closeout services to November 21, 2018 for the Astumbo Reservoir and an additional four (4) month period, from July 30, 2018 to October 15, 2018, with final completion and closeout services to November 21, 2018 for the Yigo No. 1 and 2 Reservoirs. This is based on the construction schedule submitted by the Contractor for the month of December 2017. The original contract completion date for CM services was for twelve (12) months following the notice to proceed for the Contractor on December 5, 2016 with an extended month for closeout. This CP is in conjunction with a Memorandum of Understanding (MOU) dated March 16, 2018 and signed by GHD, Pernix and GWA. The October 15, 2018 substantial completion date and November 21, 2018 final completion date are agreed upon in the MOU.

The extended CM services included in this Change Proposal will be billed on a Time and Material basis. GHD's invoices will be paid by GWA directly, and the same amount will be deducted from Pernix's contract as agreed upon in the before mentioned MOU.

Details: The Scope of Work will provide an extension of the construction phase tasks detailed in our original Scope of Work that relate to the construction of Astumbo and Yigo No. 1 and 2 Reservoirs. No additional QA testing and survey service are included as they were covered in the original Scope of Work and Change Order No. 2.

Data and Assumptions:

a. These CM Services are being provided for the construction of improvements shown on the construction plans and included in the bid schedule that was awarded to Pernix at the Astumbo and Yigo No. 1 and 2 Reservoir sites. If additional improvements are added to the construction contract then fees for additional CM Services will be negotiated with GWA.

b. For the Astumbo Reservoir, it is understood that the intent is for GHD to provide eight (8) consecutive months (171 work days or 238 concurrent calendar days) of half-time Resident Engineer (RE)/Project Manager (PM) services and eight (8) consecutive months of full time onsite inspection. RE/PM services have been estimated at 20 hours per week and onsite inspector at 40 hours per week up to a maximum of $9,500 per week. Five and a half (5.5) additional consecutive weeks (27 work days or 37 concurrent calendar days) of reduced time will be provided for the final completion time period per the MOU. During final construction phase (after substantial completion) of construction, GHD will provide RE/PM services estimated at 10 hours per week and onsite inspector at 20 hours per week. This is based upon a standard 40 hour work week.

   For the Yigo No. 1 and 2 Reservoirs, it is understood that the intent is for GHD to provide two and a half (2.5) consecutive months (54 work days or 76 calendar days) of half-time Resident Engineer (RE)/Project Manager (PM) services and two and a half (2.5) consecutive months of full time onsite inspection. RE/PM services have been estimated at 20 hours per week up to a maximum of $9,500 per week. Five and a half (5.5) additional consecutive weeks (27 work days or 37 concurrent calendar days) of reduced time will be provided for the final completion time period per the MOU. During final construction phase (after substantial completion) of construction, GHD will provide RE/PM services estimated at 10 hours per week and onsite inspection at 20 hours per week. This is based upon a standard 40 hour work week.

c. GWA agrees to negotiate with GHD for change orders for additional construction phase services for substantial completion beyond October 15, 2018 and final completion beyond November 21, 2018 at either site due to construction delays, adverse weather delays, or any other reason not due to the negligent acts of GHD until final acceptance of the project is achieved.

Our time and material fees are summarized in the following Fee Schedule:

FEE SCHEDULE FOR ADDITIONAL CONSTRUCTION MANAGEMENT SERVICES FOR ASTUMBO AND YIGO NO. 1 AND 2 RESERVOIRS

TASKS	TOTALS
Original Contract Amount	$1,387,982
Contract Amount with CO #1	$1,422,905
Contract Amount with CO #2	$1,820,471

Contract Amount with CO#3	$1,849,840.30
CP-04 Astumbo Reservoir CM Services from Construction Delay	$335,377
CP-04 Yigo Reservoirs CM Services from Construction Delay	$123,254
SUBTOTAL COST	**$458,631**
GUAM GRT (at 5%)	$22,932
TOTAL CHANGE PROPOSAL COST	**$481,563**
AMENDED CONTRACT AMOUNT	**$2,331,403.30**

* Work which exceeds the scope of this proposal will be brought to your attention for review, approval and fee adjustment. Such extra services, will be performed on a time and materials basis (per our Fee Schedule in effect at the time services are performed), or for a mutually agreed upon lump sum fees. Work performed will be billed monthly based on estimated percent complete. Payment is due within 30 days of receipt and acceptance of the invoice. We stand ready to provide the professional services necessary to assist GWA in this endeavor.

Sincerely,

Aaron Sutton
Construction Manager

Reviewed by

Bryan Ryley
Construction Manager

Attachments: GHD Change Proposal Fees for Astumbo and Yigo sites dated 04/20/2018
Cc: file

GUAM WATERWORKS AUTHORITY
"Better Water, Better Lives."
Gloria B. Nelson Public Service Building| 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Issues for Decision

Resolution No. 30-FY2018
Relative to Approval of Construction Management Contract for the Asan-Adelup-Hagatna, Route 1 Sewerline Rehabilitation and Replacement Project with Duenas, Camacho & Associates, Inc.

What are the project's objectives and are they necessary and urgent?
The objective of this is to manage the construction of the sewerline work to be completed along Route 1 in the Asan and Hagatna area, on a time and materials basis. The work during construction could include pipe replacement, cured-in-place-pipe installation, and manhole repairs along approximately 4,500 linear feet of sewerline pipe. The area of gravity sewerline from Asan into Adelup has deteriorated and experienced a number of collapses in the past two years, and requires immediate attention.

Where is the project located?
This project is located in the villages of Asan and Hagatna, along Route 1, from the Asan "War in the Pacific" National Historic Park to the Agana Main Pump Station. Construction activities will be limited to the government easements of the sewer infrastructure elements.

How much will it cost?
The construction management services contract value relative to the construction of Bid Schedule B, includes construction management, inspection, and project coordination services during construction for the amount of Eight Hundred Seventy Thousand Six Hundred Ten Dollars and Forty-One Cents ($870,610.41), plus a ten percent (10%) contingency of Eighty-Seven Thousand Sixty-One Dollars and Four Cents ($87,061.04), for a total amount of Nine Hundred Fifty-Seven Thousand Six Hundred Seventy-One Dollars and Forty-Five Cents ($957,671.45). This contract amount will be based on a Time and Materials basis.

When will it be completed?
The construction contract length of this project is 650 calendar days after an NTP is issued to the construction contractor. The construction management services will be for the whole time of the construction project and is estimated to be completed in May 2020.

What is the funding source?
The funding for this project will be from USEPA Grant and, if necessary, GWA Bond Funds.

The RFP/BID responses (if applicable):
Eight (8) proposal were received and evaluated.

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

RESOLUTION NO. 30-FY2018

RELATIVE TO APPROVAL OF A CONSTRUCTION MANAGEMENT CONTRACT FOR THE ASAN-ADELUP-HAGATNA, ROUTE 1 SEWERLINE REHABILITATION AND REPLACEMENT PROJECT
S15-002-EPA

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities ("CCU") has plenary authority over financial, contractual, and policy matters relative to the Guam Waterworks Authority ("GWA"); and

WHEREAS, the Guam Waterworks Authority ("GWA") is a Guam Public Corporation established, and existing under the laws of Guam; and

WHEREAS, GWA has received a grant from the United States Environmental Protection Agency ("USEPA") under the State Revolving Fund ("SRF") program to improve the sewer collection system, which included the gravity sewer line along Route 1, from the Asan "War in the Pacific" National Historical Park to the Agana Main Pump Station; and

WHEREAS, the segments of gravity sewer line indicated is deteriorating and has experienced collapses, bellies in the sewer line, offsets, and sections of missing or badly corroded pipe, and the intent of this project is to rehabilitate, repair or replace these sections; and

WHEREAS, GWA procured engineering design services through RFP-02-ENG-2015 that included general civil engineering, geotechnical engineering, and archeological investigation for wastewater collection system evaluation, analysis and detailed design; and

WHEREAS, the professional engineering design services have been completed by HDR Engineering, Inc. through contract, which was signed on December 10, 2015, and all rendered design documents have been accepted by GWA in May 2017; and

WHEREAS, GWA and USEPA agree that efforts to rehabilitate, repair or replace these sewer lines are necessary and the proceeding order to accomplish such task is through services that include construction management; and

WHEREAS, GWA has advertised the Request for Proposal (RFP-04-ENG-2017) dated March 30, 2017, soliciting statement of qualifications from experienced and qualified engineering firms to provide construction management services for the ASAN-ADELUP-HAGATNA, ROUTE 1 SEWERLINE REHABILITATION AND REPLACEMENT PROJECT; and

WHEREAS, RFP packages were downloaded by multiple interested parties, from which GWA received proposal submittal from eight (8) engineering firms before the RFP submittal deadline; and

WHEREAS, the GWA A-E Selection Committee reviewed and evaluated the eight (8) proposals (see EXHIBIT A-Evaluation Score) and generated a short list of the top three (3) firms with a recommendation to award a contract to the firm DUENAS, CAMACHO & ASSOCIATES, INC. ("DCA") and any successor at interest thereto (see EXHIBIT B- GM Determination); and

WHEREAS, GWA advertised the initial Invitation to Bid (IFB-06-ENG-2017) for the construction of this project on May 12, 2017, and received no responsive and responsible bidders; and

WHEREAS, GWA advertised a second time, with the Invitation to Re-Bid (IFB-11-ENG-2017) on October 31, 2017, and again received no responsive and responsible bidders; and

WHEREAS, Following the second attempt, GWA revised the bid documents and Bid Form to include two separate, independent Bid Schedules, Bid Schedule A and Bid Schedule B, with Bid Schedule A being primarily repairs by Cured-In-Place-Pipe installation, and Bid Schedule B being repairs entirely by Open Cut and Replacement; and

WHEREAS, GWA advertised the next Invitation to Re-Bid (IFB-05-ENG-2018) on May 4, 2018, with the two revised Bid Schedules; and

WHEREAS, Bid Schedule A will be opened first, and if bids should be opened and found to be responsive and responsible, the lowest responsive and responsible bid will be selected; and

WHEREAS, if no Contractors submit for Bid Schedule A, Bid Schedule B will then be opened, and the lowest responsive and responsible bid will be selected from Bid Schedule B; and

WHEREAS, DCA and GWA negotiated the price for the construction management services to be provided if either Bid Schedule A or Bid Schedule B is selected; and

WHEREAS, If Bid Schedule A is selected, the construction management services with DCA will be in the amount of Six Hundred Eighty-Three Thousand Nine Hundred Thirty-One Dollars and Thirty-Four Cents ($683,931.34) on a Time and Materials basis (See EXHIBIT C – Fee Proposal); and

WHEREAS, If Bid Schedule B is selected, the construction management services with DCA will be in the amount of Eight Hundred Seventy Thousand Six Hundred Ten Dollars and Forty-One Cents ($870,610.41) on a Time and Materials basis (See EXHIBIT C – Fee Proposal); and

WHEREAS, GWA Management seeks approval of the fee proposal for the Scope of Work relative to the construction Bid Schedule B, which includes construction management, inspection, and project coordination services during construction of Eight Hundred Seventy Thousand Six Hundred Ten Dollars and Forty-One Cents ($870,610.41), plus a ten percent (10%) contingency of Eighty-Seven Thousand Sixty-One Dollars and Four Cents ($87,061.04), for a total amount of Nine Hundred Fifty-Seven Thousand Six Hundred Seventy-One Dollars and Forty-Five Cents ($957,671.45); and

WHEREAS, funding for this project will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds applicable to the project; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the fee proposal submitted by Duenas, Camacho & Associates, Inc. (DCA) are fair and reasonable.
3. The CCU finds that the terms of the conditions set by GWA relative to commencement of work activities are fair and reasonable and serve as a measure of Quality Assurance/Quality Control (QA/QC).
4. The CCU hereby authorizes the management of GWA to enter into a contract with DCA in the amount of Eight Hundred Seventy Thousand Six Hundred Ten Dollars and Forty-One Cents ($870,610.41) (EXHIBIT C).
5. The CCU hereby further approves the total funding amount for this project of Eight Hundred Seventy Thousand Six Hundred Ten Dollars and Forty-One Cents ($870,610.41), plus a ten percent (10%) contingency of Eighty-Seven Thousand Sixty-One Dollars and Four Cents ($87,061.04), to bring the total authorized funding amount to a maximum of Nine Hundred Fifty-Seven Thousand Six Hundred Seventy-One Dollars and Forty-Five Cents ($957,671.45).

RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

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DULY AND REGULARLY ADOPTED, this 22nd day of May 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS
Chairperson

J. GEORGE BAMBA
Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

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Exhibit A (1 of 2)

GUAM WATERWORKS AUTHORITY
Gloria B. Nelson Public Service Building • 688 Route 15 • Mangilao, Guam 96913

May 19, 2017

To: Thomas F. Cruz, P.E., Chief Engineer

From: Gloria P. Bensan
Chairperson, Consultant Selection Board

Subject: RFP-04-ENG-2017
Construction Management Services for the Asan-Adelup-Hagatna, Route 1 Sewerline Rehabilitation and Replacement
GWA Project No. S15-002-EPA

The following information is intended to document the evaluation process undertaken for the referenced solicitation.

EVALUATION COMMITTEE MEMBERS	
Name	**Title**
Clinton Huntington II	Senior Engineer
Rylma Carino	Junior Engineer
Anthony Chargualaf	Operations Manager
George Watson	Brown & Caldwell, PMO

Consultant	Evaluation Score				Total	Rank
1. AmOrient	85	89	81	75	330	4
2. EMPSCO Engineering Consultants	62	90	86	86	324	5
3. LYON	80	85	80	70	315	7
4. E.M. Chen & Associates, Inc.	77	88	81	70	316	6
5. Duenas, Camacho & Associates	82	92	92	90	356	1
6. TG Engineers, PC	83	91	90	85	349	2
7. Coeval Design Partners	70	84	74	66	294	8
8. AECOM	75	89	86	89	339	3

Scores were evaluated based on sum of the individual scores. The recommendation of the evaluation committee is shown in the ranking above.

Please review and approve at your earliest convenience so that we may proceed with the notification letters.

Exhibit A (2 of 2)

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, Guam 96913

MEMORANDUM

TO: Thomas F. Cruz, P.E., Chief Engineer

FROM: Gloria P. Bensan

SUBJECT: CM Selection

DATE: May 18, 2017

Per our discussion with the General Manager and Legal Counsel on May 15, 2017, the CM selection team reconvened on May 16, 2017 at 2:30 pm to discuss the merits of evaluation for each proposal submitted for the following projects:

1. Asan-Adelup-Hagatna, Route 1 Sewerline Rehabilitation and Replacement
2. Route 2 War in the Pacific National Park Sewerline Rehabilitation and Replacement

Each selection committee reviewed the RFP proposals and reevaluated them based on the predetermined set of criteria. Committee members obtained reasonable, rational and consistent basis for their scores in comparison to the evaluation criteria outlined in the solicitation documents and determined the final ranking of proposers as shown in the attached evaluation summary.

Exhibit B (1 of 1)

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, Guam 96913

MEMORANDUM

To: Miguel C. Bordallo, P.E., General Manager

From: Thomas F. Cruz, P.E., Chief Engineer

Subject: RFP-04-ENG-2017
Construction Management Services for the Asan-Adelup-Hagatna, Route 1 Sewerline Rehabilitation and Replacement
GWA Project No. S15-002-EPA

Date: May 19, 2017

The Selection Committee has completed all necessary actions for selecting the most qualified consultant for the referenced solicitation. All proposals were reviewed and scored according to the conditions established in the solicitation. The evaluation summary sheet is attached for your information.

The committee recommends the following top three (3) firms in order of preference for the project:

1. Duenas, Camacho & Associates
2. TG Engineers, PC
3. AECOM

Concurred:

VINCENT E. GUERRERO
Supply Management Administrator

5/22/2017
Date

GENERAL MANAGER'S DETERMINATION

Consultant Firm Selected:

Duenas Camacho & Assoc.

Remarks:

MIGUEL C. BORDALLO, P.E.
General Manager

5.23.17
Date

Exhibit C (1 of 9)

Website: www.dcaguam.com
Email: dca@dcaguam.com

April 23, 2018

Guam Waterworks Authority
Engineering Division, Room 202
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, GU 96913

Attention: **Mr. Thomas F. Cruz, Chief Engineer, GWA / George Watson, Brown & Caldwell**

Subject: **GWA RFP-04-ENG--2017, Construction Management Services for Asan-Adelup-Hagatna Route 1 Sewerline Rehabilitation and Replacement, GWA Project No. S15-002-EPA**

Re: *Revised* Fee Proposal Related to Bid Schedules A and B

Hafa Adai:

Duenas, Camacho & Associates, Inc. is pleased to submit this *revised* fee proposal for **GWA RFP-04-ENG-2017, Construction Management Services for Asan-Adelup-Hagatna Route 1 Sewerline Rehabilitation and Replacement, GWA Project No. S15-002-EPA.** The revisions and updates include the following:

1. Fee estimates for:
   a. CM Services under Base Bid Schedule A – CIPP Rehabilitation of Existing Sewer Lines
      Revised Fee Estimate: $683.931.34 including a $10,000 Time & Material allowance for Material Testing
   b. ~~CM Services under Base Bid Schedule B – Cut and Cover Construction of New Sewer Lines~~
      ~~**Fee Estimate: $654,143.21 including a $20,000 Time & Material allowance for Material Testing**~~
      Revised estimate for Bid Schedule B attached.
2. 2018 (current) DCA Personnel Labor and OH Rates
3. A GRT Tax Rate of 5% (recently enacted into law)

Our revised fee estimates for construction management services for each Bid Schedule are supported by the following:

- Detailed Fee Breakdown showing an estimate of effort and expenses
- Exhibit A – Estimated expenses for DCA and CH2M submitted earlier (no change)
- Deletion of Secure Safe Solutions for video surveillance (as requested by GWA)

As indicated in our Proposal submitted in response to the subject RFP, DCA will retain CH2M (our CM Team CIPP Specialist) if a Construction Contract is awarded under Base Bid Schedule A – CIPP Rehabilitation of Existing Sewer Lines. Geo-Engineering & Testing Inc. will provide geotechnical consultation and quality assurance material testing services. The cost for video surveillance by Secure Safe Solutions has been removed at GWA's request.

The estimate of CM effort is based on the following assumptions:

1. The Scope of CM services and tasks as described in the RFP;
2. Base Bid Schedules A and B as described in the amended Bid Form provided to DCA;
3. Project construction duration of 450 calendar days;
4. Full-time resident inspection and supplementary inspection (25% of resident inspection effort for CM Services under Base Bid Schedule A and 50% of resident inspection effort for CM services under Base Bid Schedule B);

Exhibit C (2 of 9)

April 23, 2018

5. Part-time CM support by our CIPP Specialist from CH2M under Base Bid Schedule A;
6. Current (2018) DCA personnel rates (loaded).

We look forward to negotiations.

Sincerely,

||Signed
JOHN P. DUENAS, P.E.
President
Enclosures

ENGINEERING * PLANNING * SURVEYING * ENVIRONMENTAL SERVICES * GEOGRAPHIC INFORMATION SYSTEM * CONSTRUCTION MANAGEMENT
GUAM P.O. Box 8900, Tamuning, Guam 96931/238 E. Marine Corps Drive, Suite 201 Diamond Plaza, Hagatña, GU 96910-5194 Tel: (671) 477-7991/Fax: (671) 479-6315
SAIPAN PMB 164, Box 10000, Saipan, MP 96950/Island Commercial Ctr., Chalan Pale Arnold Road, Gualo Rai, Saipan 96950 / Tel: (670) 234-9017/Fax: (670) 234-3842

Exhibit C (3 of 9)

Consolidated Fee Estimate

EXHIBIT A - BASE BID SCHEDULE A
DCA EXPENSES

DUENAS, CAMACHO & ASSOCIATES, INC MANAGEMENT SERVICES FOR ASAN-ADELUP-HAGATNA ROUTE 1 SEWERLINE					CONSTRUCTION REHABILITATION AND
	CM Inspection Related Expenses	Unit	Quan	Rate	Cost
1	**Miscellaneous Expenses**	LS			$ 500.00
2	Mileage (Inspection)	mi	3200	$ 0.33	$ 1,161.60
3	Mileage (miscellaneous)	mi	2800	$ 0.33	$ 1,016.40
4	Pictures, video, etc.	LS			$ 250.00
5	Reproduction	LS			$ 3,500.00
6	Communications, etc.	LS			$ 500.00
7	Miscellaneous Survey Materials	LS			$ 250.00
		GRT	5.25%		**$ 376.85**
		DCA EXPENSES			**$ 7,554.85**

CH2M EXPENSES

CH2M MANAGEMENT SERVICES FOR ASAN-ADELUP-HAGATNA ROUTE 1 SEWERLINE REPLACEMENT, GWA PROJECT NO. S15-002-EPA					CONSTRUCTION REHABILITATION AND
		Unit	Quan	Rate	Cost
1	Travel expenses for CH2M CIPPSpec Site Visit		3	$ 3,000.00	$ 9,000.00
2	Lodging (28 days total)	Days	28	$ 215.00	$ 6,622.00
3	Meals	Days	28	$ 75.00	$ 2,310.00
4	Rental Car	Days	28	$ 50.00	$ 1,540.00
5	Misc. Expenses	Trip	3	$ 100.00	$ 330.00
	Subtotal				**$ 19,802.00**
		CH2M EXPENSES			**$ 19,802.00**

Exhibit C (4 of 9)

GUAM WATERWORKS AUTHORITY
CONSTRUCTION MANAGEMENT SERVICES FOR ASAN-ADELUP-HAGATNA ROUTE 1 SEWERLINE REHABILITATION AND REPLACEMENT,
GWA PROJECT NO. S15-002-EPA

SCHEDULE A - BASE BID: CIPP

Task No.	Task Description		Duenas, Camacho & Associates, Inc. (DCA)													CH2M				Geo-Engineering & Testing (CM Support)			
			Principal In Charge	Construction Manager	Project Construction Manager	Resident Construction Inspector	Construction Inspector (Supplementary)	Civil Engineer (CM Support)	Staff Engineer (CM Support)	Engineering Technician (CM Support)	Chief Environmental Scientist	3-Man Crew	Chief Surveyor	Administrative Assistant (CM Support)	TOTALS	CH2M Project Manager (CM Support)	CH2M Project Engineer (CIPP QC Specialist)	CH2M Administrative Manager (CM Support)	TOTALS	Principal Geotechnical Engineer	Staff Engineer	Administrative Assistant	TOTAL
			PRIN	CM	PCM	RCI	CI	CE	SED	ET	CES	3MSC	RLS	ADM									
	Loaded 2018 DCA Labor Rates >>>>>	No.	$ 182.58	$ 160.30	$ 111.04	$ 72.93	$ 72.93	$ 136.21	$ 87.66	$ 58.00	$ 100.61	$ 166.06	$ 121.33	$ 71.90		$ 308.58	$ 189.90	$ 141.18		$ 170.00	$ 90.00	$ 60.00	
		Units																					
	CM SERVICES - TOTALS		90	285	1299	2571	707	138	156	100	76	144	48	403	$ 546,042.01	38	377	38	$88,548.25	22	0	0	$ 3,740.00
	CONSTRUCTION MANAGEMENT SERVICES																						
A.	General Construction Management Tasks		90	261	501	0	0	4	0	0	64	0	4	265	$ 140,368.74	16.5	165	16.5	$38,754.54	0	0	0	$ -
1	Project Controls		90	257	0	0	0	4	0	0	4	0	4	129	$68,329.09	12	120	12	$28,185.12				$0.00
2	Project Correspondence		0	0	129	0	0	0	0	0	0	0	0	0	$14,276.57	0	0	0	$0.00				$0.00
a.	*Daily Construction Log*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
b.	*Weekly Status Report*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
c.	*Material Testing Forms*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
d.	*Photo Log*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
3	Review & Processing of Payment Requests	15	0	0	60	0	0	0	0	0	0	0	0	15	$7,740.90	1.5	15	1.5	$3,523.14				$0.00
4	Conduct Project Meetings		0	0	60	0	0	0	0	0	0	0	0	8	$7,237.60	0	0	0	$0.00				$0.00
5	Pre-construction Conference		0	4	4	0	0	0	0	0	0	0	0	1	$1,157.26	0	0	0	$0.00				$0.00
6	Progress Meetings		0	0	30	0	0	0	0	0	0	0	0	15	$4,409.70	0	0	0	$0.00				$0.00
7	Other Meetings		0	0	10	0	0	0	0	0	0	0	0	8	$1,685.60	1	10	1	$2,348.76				$0.00
8	Project Coordination		0	0	10	0	0	0	0	0	0	0	0	30	$3,267.40	0	0	0	$0.00				$0.00
9	Requests for Information		0	0	30	0	0	0	0	0	0	0	0	0	$3,331.20	1.2	12	1.2	$2,818.51				$0.00
10	General Compliance Monitoring	15	0	0	30	0	0	0	0	0	30	0	0	15	$7,428.00	0	0	0	$0.00				$0.00
a.	*Regulations & Laws*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
b.	*Labor Laws*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
c.	*Licensure*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
d.	*Permits*		0	0	0	0	0	0	0	0	30	0	0	0	$3,018.30	0	0	0	$0.00				$0.00
e.	*Insurance*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
11	Claims and Disputes		0	0	60	0	0	0	0	0	0	0	0	8	$7,237.60	0	0	0	$0.00				$0.00
a.	*Records*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
b.	*Claims*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
12	Stop Work Orders		0	0	15	0	0	0	0	0	0	0	0	6	$2,097.00	0	0	0	$0.00				$0.00
13	Schedule Monitoring		0	0	45	0	0	0	0	0	0	0	0	15	$6,075.30	0	0	0	$0.00				$0.00
14	Acceptance		0	0	18	0	0	0	0	0	0	0	0	15	$3,077.22	0.8	8	0.8	$1,879.01				$0.00
B.	Interpretations and Clarifications		0	2	15	0	0	0	0	0	12	0	0	12	$4,056.32	0	0	0	$0.00	8			$1,360.00
C.	Shop Drawings/Submittals (Review and Coordination)	60	0	4	120	0	0	60	120	60	0	0	0	60	$40,451.80	2	20	2	$4,697.52				$0.00
D.	Substitutes (Evaluation and Coordination)		0	4	30	0	0	0	0	0	0	0	0	0	$3,972.40	0.4	4	0.4	$939.50				$0.00
E.	Inspections & Tests		0	0	446	2571	643	32	0	0	0	0	0	60	$ 292,582.69	3.2	32	3.2	7516.032	8	0	0	1360
1	Resident Inspections		0	0	386	0	0	0	0	0	0	0	0	0	$42,829.71	0	0	0	$0.00	8			$1,360.00
a.	*Resident Inspector*		0	0	0	2571	643	0	0	0	0	0	0	0	$234,417.86	0	0	0	$0.00				$0.00
b.	*Special Inspections*		0	0	0	0	0	32	0	0	0	0	0	0	$4,358.72	3.2	32	3.2	$7,516.03				$0.00
2	Testing		0	0	60	0	0	0	0	0	0	0	0	60	$10,976.40	0	0	0	$0.00				$0.00
F.	Change Management	4	0	0	80	0	0	24	0	0	0	0	0	0	$ 12,152.24	0.8	8	0.8	$ 1,879.01	2	0	0	$ 340.00
1	Change Order Review		0	0	16	0	0	4	0	0	0	0	0	0	$2,321.48	0.2	2	0.2	$469.75	2			$340.00
2	Design Change		0	0	8	0	0	4	0	0	0	0	0	0	$1,433.16	0.2	2	0.2	$469.75				$0.00
3	Design Change/Verification Request		0	0	16	0	0	4	0	0	0	0	0	0	$2,321.48	0.2	2	0.2	$469.75				$0.00
4	Negotiation with Contractor		0	0	16	0	0	4	0	0	0	0	0	0	$2,321.48	0	0	0	$0.00				$0.00
5	Change Order Documents		0	0	16	0	0	4	0	0	0	0	0	0	$2,321.48	0.2	2	0.2	$469.75				$0.00
6	Estabish Change Order Pricing Bases		0	0	8	0	0	4	0	0	0	0	0	0	$1,433.16	0	0	0	$0.00				$0.00
G.	Construction Survey Services	12	0	0	12	0	0	0	0	0	0	144	44	0	$30,583.64	0	0	0	$0.00				$0.00
H.	Disputes (Handling and Resolution)		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00	4			$680.00
I.	Contractor Completion Documents		0	0	64	0	48	14	32	36	0	0	0	0	$ 17,407.26	2.2	22	2.2	$ 5,167.27	0	0	0	$ -
1	Substantial Completion		0	0	8	0	0	0	0	0	0	0	0	0	$888.32	0.8	8	0.8	$1,879.01				$0.00
2	Project Records		0	0	8	0	0	0	8	24	0	0	0	0	$2,981.60	0	0	0	$0.00				$0.00
3	Punch List Development		0	0	8	0	24	4	4	0	0	0	0	0	$3,534.12	0.8	8	0.8	$1,879.01				$0.00
4	Closing Inspections		0	0	16	0	8	4	4	0	0	0	0	0	$3,255.56	0.4	4	0.4	$939.50				$0.00
a.	*Agency Acceptance Inspections*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
b.	*Pre-Final Inspection*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
c.	*Final Inspection*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
5	Final Report		0	0	16	0	8	2	0	0	0	0	0	0	$2,632.50	0.2	2	0.2	$469.75				$0.00
6	Record Drawings		0	0	8	0	8	4	16	12	0	0	0	0	$4,115.16	0	0	0	$0.00				$0.00
J.	Commissioning and Startup		0	4	8	0	0	0	0	0	0	0	0	0	$1,529.52	0	0	0	$0.00				$0.00
K.	Training		0	4	12	0	16	4	4	4	0	0	0	6	$4,699.44	12	120	12	$28,185.12				$0.00
L.	Warranties		0	4	8	0	0	0	0	0	0	0	0	0	$1,529.52	0.6	6	0.6	$1,409.26				$0.00
M.	Spare Parts		0	2	4	0	0	0	0	0	0	0	0	0	$764.76	0	0	0	$0.00				$0.00

Exhibit C (5 of 9)

Task No.	Task Description	Principal In Charge	Construction Manager	Project Construction Manager	Resident Construction Inspector	Construction Inspector (Supplementary)	Civil Engineer (CM Support)	Staff Engineer (CM Support)	Engineering Technician (CM Support)	Chief Environmental Scientist	3-Man Crew	Chief Surveyor	Administrative Assistant (CM Support)	TOTALS	CH2M Project Manager (CM Support)	CH2M Project Engineer (CIPP QC Specialist)	CH2M Administrative Manager (CM Support)	TOTALS	Principal Geotechnical Engineer	Staff Engineer	Administrative Assistant	TOTAL
		PRIN	CM	PCM	RCI	CI	CE	SED	ET	CES	3MSC	RLS	ADM									
	Loaded 2018 DCA Labor Rates >>>>>	No.	$ 182.58	$ 160.30	$ 111.04	$ 72.93	$ 72.93	$ 136.21	$ 87.66	$ 58.00	$ 100.61	$ 166.06	$ 121.33	$ 71.90		$ 308.58	$ 189.90	$ 141.18		$ 170.00	$ 90.00	$ 60.00	
	Subconsultants	Expenses	Services		Totals		Reference	**ADDITIONAL TIME & MATERIAL COSTS**														
1	CH2M	$ 19,802.00	$ 88,548.25		$ 108,350.25		Exhibit A															
2	GeoEngineering & Testing, Inc. (Consultation)		$ 3,740.00		$ 3,740.00			Item No.	Category of Cost			Estimated Cost										
3	Secure Safe Solutions (months|cost/month)	13	$ -		$ -		Exhibit B															
		Exhibit B, Op 3						1	QA Material Testing			$ 10,000.00										
	Subtotal - Subconsultants	$ 19,815.00	$ 92,288.25		$ 112,090.25																	
	Coordination & Handling @	2.0%	$ 1,845.77		$ 2,241.81																	
	Subtotal - Subconsultants + DCA Handling		$ 94,134.02		$ 114,332.06																	

COST SUMMARY

DCA LABOR		$	546,042.01
DCA EXPENSES	Exhibit A	$	7,554.85
DCA	**Subtotal**	**$**	**553,596.85**
SUBCONSULTANTS	CH2M	$	108,350.25
	GeoEngineering & Testing	$	3,740.00
	Secure Safe Solutions	$	-
	Subtotal	$	112,090.25
	DCA Handling 2%	$	2,241.81
	GRT 5.25%	$	6,002.43
	SUBTOTAL	**$**	**673,931.34**
	QA Testing Time & Material (Estimated)	*$*	*10,000.00*

Website: www.dcaguam.com
Email: dca@dcaguam.com

Exhibit C (6 of 9)

April 23, 2018

Guam Waterworks Authority
Engineering Division, Room 202
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, GU 96913

Attention: **Mr. Thomas F. Cruz, Chief Engineer, GWA / George Watson, Brown & Caldwell**

Subject: **GWA RFP-04-ENG--2017, Construction Management Services for Asan-Adelup-Hagatna Route 1 Sewerline Rehabilitation and Replacement, GWA Project No. S15-002-EPA**

Re: *Revised* Fee Proposal Related to Bid Schedule B

Hafa Adai:

Duenas, Camacho & Associates, Inc. is pleased to submit this *revised* fee proposal for **GWA RFP-04-ENG-2017, Construction Management Services for Asan-Adelup-Hagatna Route 1 Sewerline Rehabilitation and Replacement, GWA Project No. S15-002-EPA.** The revisions address the following changes:

1. Fee estimate for CM Services under Base Bid Schedule B – Cut and Cover Construction of New Sewer Lines based on the projected Construction Contract Completion Period from 450 to **650** calendar days. **Fee Estimate: $870,610.41 including a $20,000 Time & Material allowance for Material Testing**
2. 2018 (current) DCA Personnel Labor and OH Rates
3. A GRT Tax Rate of 5% (recently enacted into law)

Our revised fee estimate for construction management services for Base Bid Schedule B is supported by the attached detailed fee breakdown showing an estimate of effort and expenses for a construction period of 650 calendar days and the *deletion* of Secure Safe Solutions for video surveillance (as requested by GWA). Geo-Engineering & Testing Inc. will provide geotechnical consultation and quality assurance material testing services.

The estimate of CM effort is based on the following assumptions for Base Bid Schedule B:

1. The Scope of CM services and tasks as described in the RFP;
2. Base Bid Schedule B as described in the amended Bid Form provided to DCA;
3. Revised projected construction duration of from 450 to 650 calendar days;
4. Full-time resident inspection and supplementary inspection of 50% of the resident inspection effort;
5. Current (2018) DCA personnel rates (loaded).

We look forward to negotiations.

Sincerely,

||Signed
JOHN P. DUENAS, P.E.
President

Enclosures

Consolidated Fee Estimate

Exhibit C(7 of 9)

EXHIBIT A - BASE BID SCHEDULE B

DCA EXPENSES

DUENAS, CAMACHO & ASSOCIATES, INC CONSTRUCTION MANAGEMENT SERVICES FOR ASAN-ADELUP-HAGATNA ROUTE 1 SEWERLINE					
	CM Inspection Related Expenses	Unit	Quan	Rate	Cost
1	**Miscellaneous Expenses**	LS			$ 500.00
2	Mileage (Inspection)	mi	4650	$ 0.33	$ 1,687.95
3	Mileage (miscellaneous)	mi	3150	$ 0.33	$ 1,143.45
4	Pictures, video, etc.	LS			$ 250.00
5	Reproduction	LS			$ 3,500.00
6	Communications, etc.	LS			$ 500.00
7	Miscellaneous Survey Materials	LS			$ 500.00
		GRT	5.25%		**$ 424.27**
		DCA EXPENSES			**$ 8,505.67**

CH2M EXPENSES

CH2M CONSTRUCTION MANAGEMENT SERVICES FOR ASAN-ADELUP-HAGATNA ROUTE 1 SEWERLINE REHABILITATION AND REPLACEMENT, GWA PROJECT NO. S15-002-EPA					
		Unit	Quan	Rate	Cost
1	Travel expenses for CH2M CIPPSpec Site Visit		0	$ 3,000.00	$ -
2	Lodging (28 days total)	Days	0	$ 215.00	$ -
3	Meals	Days	0	$ 75.00	$ -
4	Rental Car	Days	0	$ 50.00	$ -
5	Misc. Expenses	Trip	0	$ 100.00	$ -
	Subtotal				**$ -**
		CH2M EXPENSES			**$ -**

Exhibit C (8 of 9)

Task No.	Task Description		Principal In Charge	Construction Manager	Project Construction Manager	Resident Construction Inspector	Construction Inspector (Supplementary)	Civil Engineer (CM Support)	Staff Engineer (CM Support)	Engineering Technician (CM Support)	Chief Environmental Scientist	3-Man Crew	Chief Surveyor	Administrative Assistant (CM Support)	TOTALS	CH2M Project Manager (CM Support)	CH2M Project Engineer (CIPP QC Specialist)	CH2M Administrative Manager (CM Support)	TOTALS	Principal Geotechnical Engineer	Staff Engineer	Administrative Assistant	TOTAL
			PRIN	CM	PCM	RCI	CI	CE	SED	ET	CES	3MSC	RLS	ADM									
	Loaded 2018 DCA Labor Rates >>>>>	No.	$ 182.58	$ 160.30	$ 111.04	$ 72.93	$ 72.93	$ 136.21	$ 87.66	$ 58.05	$ 100.61	$ 166.06	$ 121.33	$ 71.90		$ 308.58	$ 189.90	$ 141.18		$ 170.00	$ 90.00	$ 60.00	
	CONSTRUCTION MANAGEMENT SERVICES																						
A.	General Construction Management Tasks		130	375	718	0	0	4	0	0	91	0	4	322	$ 196,894.98	0	0	0	$ -	4	0	0	$ 680.00
1	Project Controls		130	371	0	0	0	4	0	0	4	0	4	186	$98,060.86	0	0	0	$0.00	4			$680.00
2	Project Correspondence		0	0	186	0	0	0	0	0	0	0	0	0	$20,621.71	0	0	0	$0.00				$0.00
a.	*Daily Construction Log*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
b.	*Weekly Status Report*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
c.	*Material Testing Forms*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
d.	*Photo Log*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
3	Review & Processing of Payment Requests	22	0	0	87	0	0	0	0	0	0	0	0	15	$10,701.97	0	0	0	$0.00				$0.00
4	Conduct Project Meetings		0	0	87	0	0	0	0	0	0	0	0	8	$10,198.67	0	0	0	$0.00				$0.00
5	Pre-construction Conference		0	4	4	0	0	0	0	0	0	0	0	1	$1,157.26	0	0	0	$0.00				$0.00
6	Progress Meetings		0	0	43	0	0	0	0	0	0	0	0	15	$5,890.23	0	0	0	$0.00				$0.00
7	Other Meetings		0	0	14	0	0	0	0	0	0	0	0	8	$2,179.11	0	0	0	$0.00				$0.00
8	Project Coordination		0	0	14	0	0	0	0	0	0	0	0	30	$3,760.91	0	0	0	$0.00				$0.00
9	Requests for Information		0	0	43	0	0	0	0	0	0	0	0	0	$4,811.73	0	0	0	$0.00				$0.00
10	General Compliance Monitoring	22	0	0	43	0	0	0	0	0	43	0	0	15	$10,250.00	0	0	0	$0.00				$0.00
a.	*Regulations & Laws*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
b.	*Labor Laws*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
c.	*Licensure*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
d.	*Permits*		0	0	0	0	0	0	0	0	43	0	0	0	$4,359.77	0	0	0	$0.00				$0.00
e.	*Insurance*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
11	Claims and Disputes		0	0	87	0	0	0	0	0	0	0	0	8	$10,198.67	0	0	0	$0.00				$0.00
a.	*Records*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
b.	*Claims*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
12	Stop Work Orders		0	0	22	0	0	0	0	0	0	0	0	6	$2,837.27	0	0	0	$0.00				$0.00
13	Schedule Monitoring		0	0	65	0	0	0	0	0	0	0	0	15	$8,296.10	0	0	0	$0.00				$0.00
14	Acceptance		0	0	22	0	0	0	0	0	0	0	0	15	$3,570.73	0	0	0	$0.00				$0.00
B.	Interpretations and Clarifications		0	2	22	0	0	0	0	0	12	0	0	12	$4,796.59	0	0	0	$0.00	8			$1,360.00
C.	Shop Drawings/Submittals (Review and Coordination)	60	0	4	120	0	0	60	120	60	0	0	0	60	$40,451.80	0	0	0	$0.00				$0.00
D.	Substitutes (Evaluation and Coordination)		0	4	43	0	0	0	0	0	0	0	0	0	$5,452.93	0	0	0	$0.00				$0.00
E.	Inspections & Tests		0	0	617	3714	1857	32	0	0	0	0	0	60	$ 483,524.55	0	0	0	0	24	0	0	4080
1	Resident Inspections		0	0	557	0	0	0	0	0	0	0	0	0	$61,865.14	0	0	0	$0.00	24			$4,080.00
a.	*Resident Inspector*		0	0	0	3714	1857	0	0	0	0	0	0	0	$406,324.29	0	0	0	$0.00				$0.00
b.	*Special Inspections*		0	0	0	0	0	32	0	0	0	0	0	0	$4,358.72	0	0	0	$0.00				$0.00
2	Testing		0	0	60	0	0	0	0	0	0	0	0	60	$10,976.40	0	0	0	$0.00				$0.00
F.	Change Management	4	0	0	80	0	0	24	0	0	0	0	0	0	$ 12,152.24	0	0	0	$ -	8	0	0	$ 1,360.00
1	Change Order Review		0	0	16	0	0	4	0	0	0	0	0	0	$2,321.48	0	0	0	$0.00	8			$1,360.00
2	Design Change		0	0	8	0	0	4	0	0	0	0	0	0	$1,433.16	0	0	0	$0.00				$0.00
3	Design Change/Verification Request		0	0	16	0	0	4	0	0	0	0	0	0	$2,321.48	0	0	0	$0.00				$0.00
4	Negotiation with Contractor		0	0	16	0	0	4	0	0	0	0	0	0	$2,321.48	0	0	0	$0.00				$0.00
5	Change Order Documents		0	0	16	0	0	4	0	0	0	0	0	0	$2,321.48	0	0	0	$0.00				$0.00
6	Establish Change Order Pricing Bases		0	0	8	0	0	4	0	0	0	0	0	0	$1,433.16	0	0	0	$0.00				$0.00
G.	Construction Survey Services	30	0	0	30	0	0	0	0	0	0	360	45	0	$68,572.65	0	0	0	$0.00				$0.00
H.	Disputes (Handling and Resolution)		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00	6			$1,020.00
I.	Contractor Completion Documents		0	0	64	0	48	14	32	36	0	0	0	0	$ 17,407.26	0	0	0	$ -	0	0	0	$ -
1	Substantial Completion		0	0	8	0	0	0	0	0	0	0	0	0	$888.32	0	0	0	$0.00				$0.00
2	Project Records		0	0	8	0	0	0	8	24	0	0	0	0	$2,981.60	0	0	0	$0.00				$0.00
3	Punch List Development		0	0	8	0	24	4	4	0	0	0	0	0	$3,534.12	0	0	0	$0.00				$0.00
4	Closing Inspections		0	0	16	0	8	4	4	0	0	0	0	0	$3,255.56	0	0	0	$0.00				$0.00
a.	*Agency Acceptance Inspections*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
b.	*Pre-Final Inspection*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
c.	*Final Inspection*		0	0	0	0	0	0	0	0	0	0	0	0	$0.00	0	0	0	$0.00				$0.00
5	Final Report		0	0	16	0	8	2	0	0	0	0	0	0	$2,632.50	0	0	0	$0.00				$0.00
6	Record Drawings		0	0	8	0	8	4	16	12	0	0	0	0	$4,115.16	0	0	0	$0.00				$0.00
J.	Commissioning and Startup		0	4	8	0	0	0	0	0	0	0	0	0	$1,529.52	0	0	0	$0.00				$0.00
K.	Training		0	4	12	0	16	4	4	4	0	0	0	6	$4,699.44	0	0	0	$0.00				$0.00
L.	Warranties		0	4	8	0	0	0	0	0	0	0	0	0	$1,529.52	0	0	0	$0.00				$0.00
M.	Spare Parts		0	2	4	0	0	0	0	0	0	0	0	0	$764.76	0	0	0	$0.00				$0.00

	Subconsultants	Expenses	Services	Totals	Reference
1	CH2M	$ -	$ -	$ -	Exhibit A
2	GeoEngineering & Testing, Inc. (Consultation)		$ 8,500.00	$ 8,500.00	

ADDITIONAL TIME & MATERIAL COSTS			
Item No.	Category of Cost		Estimated Cost

COST SUMMARY	
DCA LABOR	$ 832,979.66

Exhibit C (9 of 9)

Task No.	Task Description	Principal In Charge	Construction Manager	Project Construction Manager	Resident Construction Inspector	Construction Inspector (Supplementary)	Civil Engineer (CM Support)	Staff Engineer (CM Support)	Engineering Technician (CM Support)	Chief Environmental Scientist	3-Man Crew	Chief Surveyor	Administrative Assistant (CM Support)	TOTALS	CH2M Project Manager (CM Support)	CH2M Project Engineer (CIPP QC Specialist)	CH2M Administrative Manager (CM Support)	TOTALS
		PRIN	CM	PCM	RCI	CI	CE	SED	ET	CES	3MSC	RLS	ADM					
	Loaded 2018 DCA Labor Rates >>>>>	No.	$ 182.58	$ 160.30	$ 111.04	$ 72.93	$ 72.93	$ 136.21	$ 87.66	$ 58.88	$ 100.61	$ 166.66	$ 121.33	$ 71.90		$ 308.58	$ 189.90	$ 141.18	
3	Secure Safe Solutions (months|cost/month)	13		$ -		$ -	Exhibit B											
		Exhibit B, Op 3						1	QA Material Testing			$	20,000.00					
	Subtotal - Subconsultants	$ 13.00	$ 8,500.00		$ 8,500.00													
	Coordination & Handling @	2.0%	$ 170.00		$ 170.00													
	Subtotal - Subconsultants + DCA Handling		$ 8,670.00		$ 8,670.00													

DCA EXPENSES			
		DCA	
SUBCONSULTANTS			
	Principal Geotechnical Engineer	$ 170.00	
	Staff Engineer	$ 90.00	
	Administrative Assistant	$ 60.00	
	TOTAL		
Exhibit A			$ 8,505.67
	Subtotal		$ 841,485.33
	CH2M		$ -
	GeoEngineering & Testing		$ 8,500.00
	Secure Safe Solutions		$ -
	Subtotal		$ 8,500.00
	DCA Handling	2%	$ 170.00
	GRT	5.25%	$ 455.18
	SUBTOTAL		**$ 850,610.51**
	QA Testing Time & Material (Estimated)		*$ 20,000.00*
	TOTAL		**$ 870,610.51**

GUAM WATERWORKS AUTHORITY
"Better Water, Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Issues for Decision

Resolution No. 31-FY2018
Relative to Approval of the 2013 and 2016 Bond Proceeds Reallocation

What is the project's objective and is it necessary and urgent?
The objective of the 2013 bond reallocation is to move "unobligated" funds to CIP line item WW 11-02 Baza Gardens STP Replacement as a means of expending the fund as expeditiously as possible to comply with the 2013 Bond indenture requirements. WW 11-02 is the CP line item that funds the Baza Gardens Wastewater Conveyance projects which has a completion deadline in FY2018.

The objective of the 2016 bond reallocation is to "focus" a little less than half of the current unobligated funds to the Court Order tank projects as a means of maintaining the design and construction activities to meet as best as possible the December 2020 deadline. An important note is that this reallocation of the 2016 bond funds will not completely address the required design and construction needs of the court order but will help GWA accelerate some of the projects which will help management the remaining tank projects to come. The planned 2019 bond issuance is still required to help complete the court order deadline requirements of December 2020.

Where is the project located?
The result of the bond reallocation will affect the fund certification for the Baza Gardens Wastewater Conveyance Projects, as well as help accelerate the procurement of the next set of tank improvements.

How much will it cost?
Six Million Five Hundred Forty-Two Thousand Six Dollars ($6,542,006.00) that are still identified as "Unobligated Project Cost" from the 2013 Bond proceeds will be reallocated to WW 11-03 Baza Gardens STP Replacement. Thirty Million Four Hundred Eighty Thousand One Hundred Fifty-Five Dollars ($30,480,155.00) that are also identified as "Unobligated Project Cost" from the 2016 Bond proceeds will be reallocated into PW 09-11 Water System Reservoirs 2005 Improvements.

When will it be completed?
The 2013 bond funds that will be reallocated is expected to be expended by end of FY2018. The 2016 bond funds that will be reallocated is expected to be encumbered by end of FY2019.

What is the funding source?
N/A

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

RESOLUTION NO. 31–FY2018

RELATIVE TO APPROVAL OF THE 2013 AND 2016 BOND PROCEEDS REALLOCATION

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities ("CCU") has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority ("GWA"); and

WHEREAS, the Guam Waterworks Authority ("GWA") is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA management has prioritized the deployment of all unobligated 2013 Bond proceeds in its efforts to maintain compliance with bond indenture requirements; and

WHEREAS, critical Court Order ("CO") projects related to Paragraph 29 of the 2011 Court Order require GWA to "Repair, Rehabilitate, Replace or Relocate" all the water reservoirs throughout the island therefore, management has focused its efforts and funding to CIP line items directly linked to the reservoir projects; and

WHEREAS, GWA finance has reconciled the 2013 Bond Capital Improvements Project (CIP) accounts and has determined there are several CIP line items with a remaining balance under the "Unobligated Project Cost" totaling Six Million Five Hundred Forty-Two Thousand Six Dollars ($6,542,006.00) (See EXHIBIT A); and

WHEREAS, GWA finance also reconciled the 2016 Bond Capital Improvements Project (CIP) accounts and determined there are several CIP line items with a remaining balance under the "Unobligated Project Cost" totaling Fifty-Eight Million Eight Hundred Sixteen Thousand Four Hundred Thirty-Six Dollars ($56,816,436.00) respectively (See EXHIBIT B); and

WHEREAS, GWA management seeks to reallocate Six Million Five Hundred Forty-One Thousand Nine Hundred Ninety-One Dollars ($6,541,991.00) of 2013 Bond proceeds from various CIP line items to the on-going Baza Gardens Wastewater Sewer Conveyance project (See EXHIBIT C); and

WHEREAS, GWA management further seeks to use Thirty-Two Million Eight Hundred Seventy-Eight Thousand Two Hundred Seventy-Two Dollars ($32,878,272.00) of the 2016 bond funds still identified in the un-obligated project cost to various on-going CIP projects such as the new production wells at AG-10, AG-12 and Y-8, production well meter replacement Phase I, fire hydrant replacement program, Bayside Sewer Pump Station rehabilitation, among others, with the remainder of the unobligated funds directed to the Court Order tank projects as a means of maintaining the design and construction activities in its effort to meet the December 2020 deadline; and

WHEREAS, critical to this 2013 and 2016 bond reallocation is the necessary sequence of actions that need to be taken wherein the reallocation of the unobligated 2013 bond proceeds to the WW 11-03 Baza Gardens STP Replacement; and

WHEREAS, the Baza Gardens Wastewater Conveyance projects that have certified funds from 2016 bond proceeds, will allow the funding for these projects to be reimbursed.; and

WHEREAS, once the 2016 bond funds are certified to the Baza Gardens Wastewater Conveyance projects as "reclassified" as a result of the completion of the 2013 bond reallocation specifically including the reimbursement noted above, the 2016 bond expenditures under WW 11-03 Baza Gardens STP Replacement will be increased by Six Million Seven Hundred Thirty-Six Thousand Three Hundred Seventy-Nine Dollars ($6,736,379.00) (See EXHIBIT D); and

WHEREAS, the cumulative actions of (1) the 2013 and 2016 bond reallocation and (2) the application of Thirty-Two Million Eight Hundred Seventy-Eight Thousand Two Hundred Seventy-Two Dollars ($32,878,272.00) as noted above, will result in Thirty Million Four Hundred Eighty Thousand One Hundred Fifty-Five Dollars ($30,480,155.00) (See EXHIBIT E) being able to be directed into PW 09-11 Water System Reservoirs 2005 Improvements to ensure

available funding is on hand to complete procurement of the next set of tanks requiring rehabilitation, repair or relocation; and

WHEREAS, the 2016 bond reallocation items related to Court Ordered tank projects is will not fully fund the remaining tank projects and the remaining funds will be apportioned out of the next planned bond borrowing in 2019; and

WHEREAS, GWA management seeks CCU approval to petition the PUC for approval to reallocate the 2013 and 2016 bond as indicated above; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve and authorize the following:

1. The CCU finds the justification for the 2013 and 2016 bond reallocation to be acceptable.
2. The CCU approves Six Million Five Hundred Forty-One Thousand Nine Hundred Ninety-One Dollars ($6,541,991.00) of 2013 Bond proceeds from various CIP line items to be reallocated to WW 11-03 to fund the on-going Baza Gardens Wastewater Sewer Conveyance projects.
3. The CCU further approves Thirty Million Four Hundred Eighty Thousand One Hundred Fifty-Five Dollars ($30,480,155.00) of 2016 bond proceeds from various CIP line items to be reallocated to PW 09-11 Water System Reservoirs 2005 Improvements.
4. The CCU further approves GWA management seek PUC approval for the reallocation of 2013 and 2016 bond funds as indicated herein.

RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

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DULY AND REGULARLY ADOPTED, this 22nd day of May 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS **J. GEORGE BAMBA**
Chairperson Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

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Exhibit A (1 of 1)

GUAM WATERWORKS AUTHORITY
2013 Series Bond Project Status
As of April 30,2018

SCHEDULE J

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 04/30/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 04/30/18
Santa Rita Springs Booster Pump Rehab Phase II	$ 100,000	$ 100,000	77,400	22,600	$ 100,000	$ -	$ 22,600
"A" Series Well Transmission Line	$ 400,000	$ 400,000	369,846	(0)	$ 369,846	$ 30,154.27	$ 30,154
Water Booster Pump Station	$ 6,000,000	$ 1,861,000	1,656,428	23,536	$ 1,679,964	$ 181,035.67	$ 204,572
Meter Replacement Program		$ 999,000	996,532	-	$ 996,532	$ 2,467.67	$ 2,468
Barrigada Tank Repair/Replacement	$ 6,000,000	$ 4,987,000	4,924,959	62,041	$ 4,987,000	$ 0.49	$ 62,041
Leak Detection	$ 100,000	$ 20,000	16,916	-	$ 16,916	$ 3,083.75	$ 3,084
Potable Water System Planning	$ 800,000	$ 624,000	603,390	20,610	$ 624,000	$ -	$ 20,610
Implement Ground Water Rule	$ 1,000,000	$ 1,000,000	1,000,000	-	$ 1,000,000	$ -	$ -
Deep Well Rehabilitation	$ 800,000	$ 200,000	189,930	10,071	$ 200,000	$ (0.27)	$ 10,070
New Deep Wells at Down Hard	$ 2,000,000	$ 810,000			$ -	$ 810,000.00	$ 810,000
Master Meters	$ 4,000,000	$ 784,000	531,188	180,872	$ 712,060	$ 71,939.97	$ 252,812
Ugum Water Treatment Plant Intake	$ 1,000,000	$ 982,000	578,858	280,943	$ 859,801	$ 122,199.03	$ 403,142
Water Wells	$ 4,200,000	$ 4,200,000	2,284,474	745,555	$ 3,030,029	$ 1,169,971.27	$ 1,915,527
Water Distribution System	$ 12,000,000	$ 11,151,000	6,718,325	4,194,128	$ 10,912,453	$ 238,547.16	$ 4,432,675
Pressure Zone Realignment /	$ 1,000,000	$ 431,000	336,036	1,074	$ 337,110	$ 93,890.09	$ 94,964
Mechanical/Electrical Equipment	$ 430,000	$ 430,000	328,686	98,112	$ 426,798	$ 3,201.64	$ 101,314
Water Reservoir Internal/External	$ 800,000	$ -			$ -	$ -	$ -
Water System Reservoirs 2005 Improvements	$ 21,000,000	$ 13,878,000	10,857,217	3,020,784	$ 13,878,000	$ (0.30)	$ 3,020,783
Ugum Water Treatment Plant Reservoir	$ 7,000,000	$ 90,000			$ -	$ 90,000.00	$ 90,000
Agana Heights & Chaot Tanks	$ 4,500,000	$ 3,280,000	241,603	1,088,684	$ 1,330,287	$ 1,949,712.96	$ 3,038,397
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 13,500,000	$ 11,605,000	5,398,068	6,206,932	$ 11,605,000	$ 0.30	$ 6,206,932
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 8,000,000	$ -			$ -	$ -	$ -
Assessment of malojloj Elevetad & Yigo Elevated	$ 500,000	$ 485,117	461,813	23,304	$ 485,117	$ -	$ 23,304
Fire Hydrant Replacement Program	$ -	$ -			$ -	$ -	$ -
		$ -					
Wastewater System Planning	$ 800,000	$ 651,000	550,968	99,933	$ 650,900	$ 99.53	$ 100,032
Lift Station Upgrades	$ 5,000,000	$ 946,000	562,785	363	$ 563,149	$ 382,851.50	$ 383,215
Wastewater Collection System Repl/Rehab	$ 6,500,000	$ 780,000	555,848	104,465	$ 660,314	$ 119,686.50	$ 224,152
Baza Gardens STP Replacement		$ 3,114,883	969,594	2,145,275	$ 3,114,869	$ 14.50	$ 2,145,290
Facilities Plan/Design for Umatac-Merizo WWTP		$ 473,000	341,226	30,473	$ 371,699	$ 101,301.00	$ 131,774
Agat/Santa Rita STP Replacement	$ 19,000,000	$ 67,200,000	43,563,454	23,636,545	$ 67,200,000	$ 0.17	$ 23,636,546
Agana WWTP Interim Measures		$ 673,000	611,247	61,753	$ 673,000	$ (0.19)	$ 61,753
Umatac Merizo Replacement	$ 2,000,000	$ -			$ -	$ -	$ -
		$ -					
Wastewater Pump Station Electrical Upgrade	$ 620,000	$ 620,000	91,348	8,513	$ 99,861	$ 520,139.31	$ 528,652
Electrical Upgrade - Water Wells	$ 1,500,000	$ 1,500,000	1,480,769	19,230	$ 1,500,000	$ 0.32	$ 19,231
Electrical Upgrade - Water Booster	$ 325,000	$ 2,000			$ -	$ 2,000.00	$ 2,000
Electrical Upgrade -Water Booster	$ 350,000	$ 200,000	977	-	$ 977	$ 199,023.00	$ 199,023
Electrical Upgrade - Other Water	$ 250,000	$ 150,000	60,700	-	$ 60,700	$ 89,300.00	$ 89,300
SCADA Improvements – Phase 3	$ 1,850,000	$ 923,000	427,949	294,410	$ 722,359	$ 200,641.00	$ 495,051
SCADA Improvements – Phase 4	$ 500,000	$ -			$ -	$ -	$ -
		$ -					$ -
Laboratory Modernization	$ 1,500,000	$ 1,173,000	1,163,037	8,428	$ 1,171,465	$ 1,535.20	$ 9,963
Land Survey	$ 2,000,000	$ 2,000	1,038	15	$ 1,053	$ 947.50	$ 963
General Plant Improvements / Water	$ 2,000,000	$ 2,600,000	1,265,043	1,176,695	$ 2,441,737	$ 158,262.64	$ 1,334,957
Allowance for COI							$ 275,005
Interest Earned							$ 602,317
Total Construction Fund (2013 Series Revenue Bond)	**$ 139,325,000**	**$ 139,325,000**	**$ 89,217,649**	**$ 43,565,345**	**$ 132,782,994**	**$ 6,542,006**	**$ 50,984,672**

PUC's Docket 14-04 dated February 25, 2014

ts are new projects added thru the reallocation of PUC's Docket 15-02

Exhibit B (1 of 1)

GUAM WATERWORKS AUTHORITY
2016 Series Bond Project Status
As of April 30,2018

SCHEDULE L

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 04/30/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 04/30/18
Water Booster Pump Station	$ 4,139,000	$ 4,139,000			$ -	$ 4,139,000	$ 4,139,000
Meter Replacement Program	$ 4,501,000	$ 4,501,000	27,351	122,648.72	$ 150,000	$ 4,351,000	$ 4,473,649
Barrigada Tank Repair/Replacement	$ 1,013,000	$ 1,013,000		-	$ -	$ 1,013,000	$ 1,013,000
Leak Detection	$ 1,180,000	$ 1,180,000		-	$ -	$ 1,180,000	$ 1,180,000
Potable Water System Planning	$ 2,276,000	$ 2,276,000	257,062	619,231.76	$ 876,294	$ 1,399,706	$ 2,018,938
Deep Well Rehabilitation	$ 250,000	$ 250,000		110,013.00	$ 110,013	$ 139,987	$ 250,000
New Deep Wells at Down Hard	$ 1,190,000	$ 1,190,000			$ -	$ 1,190,000	$ 1,190,000
Master Meters	$ 3,616,000	$ 3,616,000	151,539	-	$ 151,539	$ 3,464,461	$ 3,464,461
Ugum Water Treatment Plant Intake	$ 18,000	$ 18,000			$ -	$ 18,000	$ 18,000
Water Wells	$ 2,500,000	$ 2,500,000			$ -	$ 2,500,000	$ 2,500,000
Water Distribution System	$ 2,049,000	$ 49,000			$ -	$ 49,000	$ 49,000
Pressure Zone Realignment /	$ 1,141,000	$ 1,141,000		668,355.20	$ 668,355	$ 472,645	$ 1,141,000
Mechanical/Electrical Equipment	$ 100,000	$ 100,000			$ -	$ 100,000	$ 100,000
Water Reservoir Internal/External	$ 800,000	$ 800,000			$ -	$ 800,000	$ 800,000
Water System Reservoirs 2005 Improvements	$ 42,350,000	$ 28,350,000	1,923,069	12,345,718.67	$ 14,268,787	$ 14,081,213	$ 26,426,931
Ugum Water Treatment Plant Reservoir	$ 6,410,000	$ -			$ -	$ -	$ -
Water Audit Program & Water Loss Control Plan	$ 1,000,000	$ 1,000,000				$ 1,000,000	$ 1,000,000
Agana Heights & Chaot Tanks	$ 1,220,000	$ 1,220,000		500,000.00	$ 500,000	$ 720,000	$ 1,220,000
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 1,895,000	$ 1,895,000		1,822,132.80	$ 1,822,133	$ 72,867	$ 1,895,000
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 10,500,000	$ 7,409,830		7,300,000.00	$ 7,300,000	$ 109,830	$ 7,409,830
Fire Hydrant Replacement Program	$ 2,000,000	$ 2,000,000			$ -	$ 2,000,000	$ 2,000,000
						$ -	
Wastewater System Planning	$ 349,000	$ 349,000	118,587	194,396.23	$ 312,983	$ 36,017	$ 230,413
Lift Station Upgrades	$ 2,404,000	$ 2,404,000	193,511	321,243.53	$ 514,755	$ 1,889,245	$ 2,210,489
Wastewater Collection System Repl/Rehab	$ 2,920,000	$ 2,920,000		555,478.00	$ 555,478	$ 2,364,522	$ 2,920,000
Baza Gardens STP Replacement	$ 16,700,000	$ 29,400,170	10,030,819	19,174,963.36	$ 29,205,782	$ 194,388	$ 19,369,351
Facilities Plan/Design for Umatac-Merizo WWTP	$ 527,000	$ 527,000	225,258	26,846.67	$ 252,105	$ 274,895	$ 301,742
Agat/Santa Rita STP Replacement	$ 3,000,000	$ 3,000,000	902,989	216,710.57	$ 1,119,700	$ 1,880,300	$ 2,097,011
Agana WWTP Interim Measures	$ 827,000	$ 827,000			$ -	$ 827,000	$ 827,000
Umatac Merizo Replacement	$ 8,000,000	$ 20,800,000	2,803,249	17,799,005.51	$ 20,602,254	$ 197,746	$ 17,996,751
						$ -	
Wastewater Pump Station Electrical Upgrade	$ 100,000	$ 100,000			$ -	$ 100,000	$ 100,000
Electrical Upgrade - Water Wells	$ 650,000	$ 650,000			$ -	$ 650,000	$ 650,000
Electrical Upgrade - Water Booster	$ 323,000	$ 323,000			$ -	$ 323,000	$ 323,000
SCADA Improvements – Phase 3	$ 1,177,000	$ 1,177,000	18,000	599,496.51	$ 617,497	$ 559,503	$ 1,159,000
SCADA Improvements – Phase 4	$ 6,500,000	$ 6,500,000			$ -	$ 6,500,000	$ 6,500,000
						$ -	
Laboratory Modernization	$ 1,127,000	$ 1,127,000	1,127,000	-	$ 1,127,000	$ -	$ -
Land Survey	$ 1,998,000	$ 1,998,000	130,370	1,130,153.37	$ 1,260,524	$ 737,476	$ 1,867,630
General Plant Improvements / Water	$ 2,769,463	$ 2,769,463	647,695	896,065.14	$ 1,543,760	$ 1,225,703	$ 2,121,768
Information Technology Integration Improvements	$ 500,000	$ 500,000	244,068	-	$ 244,068	$ 255,932	$ 255,932
Interest Earned							$ 1,007,853
Total Construction Fund (2016 Series Revenue Bond)	**$ 140,019,463**	**$ 140,019,463**	**$ 18,800,568**	**$ 64,402,459**	**$ 83,203,027**	**$ 56,816,436**	**$ 122,226,749**

Exhibit C (1 of 1)

2013 Bond Reallocation			
CIP No.	Name	Additional Funds	Reduction Funds
PW 05-05	"A" Series Well Transmission Line		$ 30,154
PW 05-06	Water Booster Pump Station		$ 181,036
PW 05-07	Meter Replacement Program		$ 2,468
PW 05-09	Leak Detection		$ 3,084
PW 05-14	New Deep Wells at Down Hard		$ 810,000
PW 05-16	Master Meters		$ 71,940
PW 09-01	Ugum Water Treatment Plant Intake		$ 122,199
PW 09-02	Water Wells		$ 1,169,971
PW 09-03	Water Distribution System		$ 238,547
PW 09-04	Pressure Zone Realignment /		$ 93,890
PW 09-08	Mechanical/Electrical Equipment		$ 3,201
PW 11-02	Ugum Water Treatment Plant Reservoir		$ 90,000
PW 12-04	Agana Heights & Chaot Tanks		$ 1,949,713
WW 05-04	Wastewater System Planning		$ 99
WW 09-01	Lift Station Upgrades		$ 382,852
WW 09-06	Wastewater Collection System Repl/Rehab		$ 119,687
WW 11-03	Baza Gardens STP Replacement	$ 6,541,991	
WW 11-04	Facilities Plan/Design for Umatac-Merizo WWTP		$ 101,301
EE 09-01	Wastewater Pump Station Electrical Upgrade		$ 520,139
EE 09-03	Electrical Upgrade - Water Booster		$ 2,000
EE 09-04	Electrical Upgrade -Water Booster		$ 199,023
EE 09-05	Electrical Upgrade - Other Water		$ 89,300
EE 09-08	SCADA Improvements – Phase 3		$ 200,641
MC 05-01	Laboratory Modernization		$ 1,535
MC 05-02	Land Survey		$ 948
MC 09-01	General Plant Improvements / Water		$ 158,263
		$ 6,541,991	$ 6,541,991

14.5

$ 6,542,006

Exhibit D (1 of 1)

GUAM WATERWORKS AUTHORITY
2016 Series Bond Project Status
As of April 30,2018

SCHEDULE L

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 04/30/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 04/30/18
Water Booster Pump Station	$ 4,139,000	$ 4,139,000			$ -	$ 4,139,000	$ 4,139,000
Meter Replacement Program	$ 4,501,000	$ 4,501,000	27,351	122,648.72	$ 150,000	$ 4,351,000	$ 4,473,649
Barrigada Tank Repair/Replacement	$ 1,013,000	$ 1,013,000		-	$ -	$ 1,013,000	$ 1,013,000
Leak Detection	$ 1,180,000	$ 1,180,000		-	$ -	$ 1,180,000	$ 1,180,000
Potable Water System Planning	$ 2,276,000	$ 2,276,000	257,062	619,231.76	$ 876,294	$ 1,399,706	$ 2,018,938
Deep Well Rehabilitation	$ 250,000	$ 250,000		110,013.00	$ 110,013	$ 139,987	$ 250,000
New Deep Wells at Down Hard	$ 1,190,000	$ 1,190,000			$ -	$ 1,190,000	$ 1,190,000
Master Meters	$ 3,616,000	$ 3,616,000	151,539	-	$ 151,539	$ 3,464,461	$ 3,464,461
Ugum Water Treatment Plant Intake	$ 18,000	$ 18,000			$ -	$ 18,000	$ 18,000
Water Wells	$ 2,500,000	$ 2,500,000			$ -	$ 2,500,000	$ 2,500,000
Water Distribution System	$ 2,049,000	$ 49,000			$ -	$ 49,000	$ 49,000
Pressure Zone Realignment /	$ 1,141,000	$ 1,141,000		668,355.20	$ 668,355	$ 472,645	$ 1,141,000
Mechanical/Electrical Equipment	$ 100,000	$ 100,000			$ -	$ 100,000	$ 100,000
Water Reservoir Internal/External	$ 800,000	$ 800,000			$ -	$ 800,000	$ 800,000
Water System Reservoirs 2005 Improvements	$ 42,350,000	$ 28,350,000	1,923,069	12,345,718.67	$ 14,268,787	$ 14,081,213	$ 26,426,931
Ugum Water Treatment Plant Reservoir	$ 6,410,000	$ -			$ -	$ -	$ -
Water Audit Program & Water Loss Control Plan	$ 1,000,000	$ 1,000,000				$ 1,000,000	$ 1,000,000
Agana Heights & Chaot Tanks	$ 1,220,000	$ 1,220,000		500,000.00	$ 500,000	$ 720,000	$ 1,220,000
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 1,895,000	$ 1,895,000		1,822,132.80	$ 1,822,133	$ 72,867	$ 1,895,000
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 10,500,000	$ 7,409,830		7,300,000.00	$ 7,300,000	$ 109,830	$ 7,409,830
Fire Hydrant Replacement Program	$ 2,000,000	$ 2,000,000			$ -	$ 2,000,000	$ 2,000,000
						$ -	
Wastewater System Planning	$ 349,000	$ 349,000	118,587	194,396.23	$ 312,983	$ 36,017	$ 230,413
Lift Station Upgrades	$ 2,404,000	$ 2,404,000	193,511	321,243.53	$ 514,755	$ 1,889,245	$ 2,210,489
Wastewater Collection System Repl/Rehab	$ 2,920,000	$ 2,920,000		555,478.00	$ 555,478	$ 2,364,522	$ 2,920,000
Baza Gardens STP Replacement	$ 16,700,000	$ 29,400,170	3,488,813	19,174,963.36	$ 22,663,776	$ 6,736,394	$ 25,911,357
Facilities Plan/Design for Umatac-Merizo WWTP	$ 527,000	$ 527,000	225,258	26,846.67	$ 252,105	$ 274,895	$ 301,742
Agat/Santa Rita STP Replacement	$ 3,000,000	$ 3,000,000	902,989	216,710.57	$ 1,119,700	$ 1,880,300	$ 2,097,011
Agana WWTP Interim Measures	$ 827,000	$ 827,000			$ -	$ 827,000	$ 827,000
Umatac Merizo Replacement	$ 8,000,000	$ 20,800,000	2,803,249	17,799,005.51	$ 20,602,254	$ 197,746	$ 17,996,751
						$ -	
Wastewater Pump Station Electrical Upgrade	$ 100,000	$ 100,000			$ -	$ 100,000	$ 100,000
Electrical Upgrade - Water Wells	$ 650,000	$ 650,000			$ -	$ 650,000	$ 650,000
Electrical Upgrade - Water Booster	$ 323,000	$ 323,000			$ -	$ 323,000	$ 323,000
SCADA Improvements – Phase 3	$ 1,177,000	$ 1,177,000	18,000	599,496.51	$ 617,497	$ 559,503	$ 1,159,000
SCADA Improvements – Phase 4	$ 6,500,000	$ 6,500,000			$ -	$ 6,500,000	$ 6,500,000
						$ -	
Laboratory Modernization	$ 1,127,000	$ 1,127,000	1,127,000	-	$ 1,127,000	$ -	$ -
Land Survey	$ 1,998,000	$ 1,998,000	130,370	1,130,153.37	$ 1,260,524	$ 737,476	$ 1,867,630
General Plant Improvements / Water	$ 2,769,463	$ 2,769,463	647,695	896,065.14	$ 1,543,760	$ 1,225,703	$ 2,121,768
Information Technology Integration Improvements	$ 500,000	$ 500,000	244,068	-	$ 244,068	$ 255,932	$ 255,932
Interest Earned							$ 1,007,853
Total Construction Fund (2016 Series Revenue Bond)	**$ 140,019,463**	**$ 140,019,463**	**$ 12,258,562**	**$ 64,402,459**	**$ 76,661,021**	**$ 63,358,442**	**$ 128,768,755**

2016 Bond Reallocation			
CIP No.	Name	Additional Funds	Reduction Funds
PW 05-06	Water Booster Pump Station		$ 4,139,000
PW 05-07	Meter Replacement Program		$ 3,101,000
PW 05-08	Barrigada Tank Repair/Replacement		$ 1,013,000
PW 05-09	Leak Detection		$ 1,080,000
PW 05-10	Potable Water System Planning		$ 1,399,706
PW 05-16	Master Meters		$ 1,464,461
PW 09-01	Ugum Water Treatment Plant Intake		$ 18,000
PW 09-03	Water Distribution System		$ 49,000
PW 09-08	Mechanical/Electrical Equipment		$ 100,000
PW 09-11	Water System Reservoirs 2005 Improvements	$ 30,480,170.00	
PW 12-01	Water Audit Program & Water Loss Control Plan		$ 450,000
PW 12-05	Tank Major Repair Yigo#1 Mangilao#2 Agat#2		$ 72,867
PW 12-06	Tank Major Repair Yigo#1 Mangilao#2 Agat#2		$ 109,830
PW 14-01	Fire Hydrant Replacement Program		$ 800,000
WW 05-04	Wastewater System Planning		$ 36,017
WW 09-01	Lift Station Upgrades		$ 689,245
WW 09-06	Wastewater Collection System Repl/Rehab		$ 1,864,522
WW 11-03	Baza Gardens STP Replacement		$ 6,736,394
WW 11-04	Facilities Plan/Design for Umatac-Merizo WWTP		$ 274,895
WW 11-08	Agat/Santa Rita STP Replacement		$ 997,669
WW 12-03	Agana WWTP Interim Measures		$ 827,000
EE 09-01	Wastewater Pump Station Electrical Upgrade		$ 100,000
EE 09-02	Electrical Upgrade - Water Wells		$ 650,000
EE 09-03	Electrical Upgrade - Water Booster		$ 323,000
EE 09-08	SCADA Improvements – Phase 3		$ 99,503
EE 09-09	SCADA Improvements – Phase 4		$ 2,121,882
MC 05-02	Land Survey		$ 737,476
MC 09-01	General Plant Improvements / Water		$ 1,225,703
		$ 30,480,170	$ 30,480,170

GUAM WATERWORKS AUTHORITY
"Better Water, Better Lives."
Gloria B. Nelson Public Service Building| 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Issues for Decision

Resolution No. 32-FY2018
Relative to Approval of a Contract for Design and Construction of the GWA Interceptor Sewer Refurbishment Project, Northern District, GWA Project No. S-18-003-OEA, (OEA Grant OCON 676-16-01)

What is the project's objective and is it necessary and urgent?
The objective of the Interceptor Sewer Refurbishment project is to maintain wastewater collection service to Andersen Air Force Base, provide service to the military forces being relocated to Guam, and to mitigate impacts to groundwater resources. The sewer refurbishment project is necessary to protect the groundwater aquifer by improving the wastewater collection system to ensure that the relocation of military assets to Guam do not adversely affect the civilian infrastructure or resources. The installation is urgent to meet the scheduled military relocation.

Where is the location?
The interceptor sewer is located near the entrance to Andersen AFB at the north gate and runs generally west along Route 9 and south along Route 3 and terminates at the Northern District Wastewater Treatment Plant. The sewer comprises approximately 8.4 miles of 18-inch to 42-inch diameter pipe.

How much will it cost?
GWA Management seeks CCU approval for the proposed bid price of Twenty-Two Million Eight Hundred Ninety-Seven Thousand Eight Hundred Eight Dollars ($22,897,808.00) plus a ten percent (10%) contingency of Two Million Two Hundred Eighty-Nine Thousand Seven Hundred Eighty Dollars and Eighty Cents ($2,289,780.80) to bring the total authorized funding amount requested to Twenty-Five Million One Hundred Eighty-Seven Thousand Five Hundred Eighty-Eight Dollars and Eighty Cents ($25,187,588.80)

When will it be completed?
The anticipated completion of the construction activities by the contractor is October 2020, however this is dependent on weather conditions.

What is the funding source?
Funding for the Interceptor Sewer Refurbishment project is from the General Assistance Grant for water and wastewater improvements in support of the relocation of U.S. Marines and their dependents to Guam OEA Grant No. OCON676-16-01, dated August 26, 2016, for $30,600,000.

The RFP/BID responses (if applicable):
- 13 firms registered for and picked up the bidding documents
- 3 firms submitted bids
- Core Tech-Hawaiian Dredging, LLC is recommended as the lowest priced, responsive and responsible bidder.

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

RESOLUTION NO. 32–FY2018

RELATIVE TO APPROVAL OF CONTRACT FOR DESIGN AND CONSTRUCTION OF THE GWA INTERCEPTOR SEWER REFURBISHMENT PROJECT, NORTHERN DISTRICT, GWA PROJECT NO. S18-003-OEA (OEA GRANT OCO N676-16-01)

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities ("CCU") has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority ("GWA"); and

WHEREAS, the Guam Waterworks Authority ("GWA") is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, the U.S. Department of Defense, Office of Economic Adjustment awarded to GWA a General Assistance Grant (OCON676-16-01) for community investment August 26, 2016 for $30,600,000, of which funding for the interceptor sewer refurbishment is included; and

WHEREAS, the General Assistance Grant is to be used for water and wastewater improvements in support of the relocation of U.S. Marines and their dependents to Guam; and

WHEREAS, the report "Final Guam Water and Wastewater Assessment Report in Support of the Economic Adjustment Committee Implementation Plan," (NAVFAC, Department of the Navy, February 2015) has recommended the refurbishment of GWA's Interceptor Sewer from the Andersen Air Force Base (AAFB) gate on Rt. 9 to the Northern District Wastewater Treatment Plant; and

WHEREAS, the refurbishment is necessary to prevent sewer collapses and the resultant loss of wastewater sewer services to proposed Marine Corps housing at AAFB and cantonment at Finegayan; and

WHEREAS, GWA has advertised an Invitation for Bid IFB-03-ENG-2018 dated January 23, 2018, soliciting bid proposals from experienced, responsible, and responsive bidders to design and construct refurbishments to the interceptor sewer through a multi-step bid; and

WHEREAS, the Pre-Bid Conference was attended by thirteen (13) interested firms and thirteen (13) firms picked up the appropriate documents on flash drive, from which GWA received bid submittals from three (3) firms before the bid submittal deadline (See EXHIBIT A – Abstract of Bids); and

WHEREAS, Step 1 of the multi-step bid was conducted by GWA where firms presented their qualifications and a technical offer on March 15, 2018; and

WHEREAS, GWA Engineering evaluated the proposals and technical offers and issued a Qualified Bidders List on March 19, 2018 qualifying all three (3) firms that submitted technical offers and requested them to submit price proposals by April 26, 2018 as Step 2 of the multi-step bid; and

WHEREAS, GWA Engineering and the Program Manager (PM/CM) analyzed all bid price proposals received and determined that Core Tech-Hawaiian Dredging, LLC, who submitted the lowest bid as being the responsive and responsible bidder and met all the bid requirements set forth by GWA (See EXHIBIT B – Recommendation Memorandum); and

WHEREAS, GWA Management finds the Core Tech-Hawaiian Dredging, LLC bid proposal of Twenty-Two Million Eight Hundred Ninety-Seven Thousand Eight Hundred Eight Dollars ($22,897,808.00) to be acceptable (See EXHIBIT C – Bid Proposal); and

WHEREAS, GWA Management is seeking approval to enter into contract with Core Tech-Hawaiian Dredging, LLC for IFB-03-ENG-2018 in the amount Twenty-Two Million Eight Hundred Ninety-Seven Thousand Eight Hundred Eight Dollars ($22,897,808.00), and

WHEREAS, GWA Management further seeks CCU approval of a ten percent (10%) contingency of Two Million Two Hundred Eighty-Nine Thousand Seven Hundred Eighty Dollars

and Eighty Cents (2,289,780.80) to bring the total authorized funding to Twenty-Five Million One Hundred Eighty-Seven Thousand Five Hundred Eighty-Eight Dollars and Eighty Cents ($25,187,588.80); and

WHEREAS, the funding source for the project will be from the General Assistance Grant (OCON676-16-01); and

WHEREAS, GWA management intends to inform the Public Utilities Commission of the project and contract amount in accordance to the PUC Contract Review Protocol given the funding source is a federal grant; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the bid proposal submitted by Core Tech-Hawaiian Dredging, LLC are fair and reasonable.
3. The CCU hereby authorizes the management of GWA to accept the bid from Core Tech-Hawaiian Dredging, LLC attached hereto as EXHIBIT C, and which is also incorporated into this Resolution in its entirety.
4. The CCU hereby authorizes the management of GWA to execute an Agreement with Core Tech-Hawaiian Dredging, LLC in the amount of. Twenty-Two Million Eight Hundred Ninety-Seven Thousand Eight Hundred Eight Dollars ($22,897,808.00)
5. The CCU hereby authorizes the funding total of Twenty-Two Million Eight Hundred Ninety-Seven Thousand Eight Hundred Eight Dollars ($22,897,808.00), along with a ten percent (10%) contingency of Two Million Two Hundred Eighty-Nine Thousand Seven Hundred Eighty Dollars and Eighty Cents (2,289,780.80), bringing the total requested funding amount to Twenty-Five Million One Hundred Eighty-Seven Thousand Five Hundred Eighty-Eight Dollars and Eighty Cents ($25,187,588.80).

6. The CCU hereby further approves the funding source for the project will be from the General Assistance Grant (OCON676-16-01).
7. The CCU authorizes GWA management to inform the PUC of the project and contract cost per the PUC Contract Review Protocol.

RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

DULY AND REGULARLY ADOPTED, this 22nd day of May 2018.

Certified by:	Attested by:
_____	_____
JOSEPH T. DUENAS	**J. GEORGE BAMBA**
Chairperson	Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

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Exhibit A - Abstract of Bids (1 of 2)

Guam Waterworks Authority **Interceptor Sewer Refurbishment** **Bid Tab** **4/26/2018**

				Engineer's Estimate		Core Tech		Granite		Insituform	
Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price	Bid Unit Price	Bid Price	Bid Unit Price	Bid Price	Bid Unit Price	Bid Price
1	Mobilization, Insurance, Bonds, and Demobilization	LS	1			$ 2,254,477.84	$ 2,254,477.84	$ 2,100,000.00	$ 2,100,000.00	$ 2,079,800.00	$ 2,079,800.00
2	All work to provide survey and legal descriptions for preparation of permanent easements on Ancestral Lands	LS	1			$ 38,795.00	$ 38,795.00	$ 40,000.00	$ 40,000.00	$ 21,100.00	$ 21,100.00
3	All work required for field verification, design and Design Professional Services, including but not limited to design submittals, flow management plans, meetings, permitting assistance, coordination, and other services to provide full design support for the project	LS	1			$ 1,528,978.00	$ 1,528,978.00	$ 1,871,284.00	$ 1,871,284.00	$ 819,700.00	$ 819,700.00
4	Archaeological Survey and Report for complete project	LS	Allowance	$40,000	$40,000	$ 40,000.00	$40,000	$ 40,000.00	$40,000	$ 40,000.00	$40,000
5	Building Permit Fees	LS	Allowance	$85,000	$85,000	$ 85,000.00	$85,000	$ 85,000.00	$85,000	$ 85,000.00	$85,000
6	Plan Check Fee	LS	Allowance	$55,000	$55,000	$ 55,000.00	$55,000	$ 55,000.00	$55,000	$ 55,000.00	$55,000
7	Highway Encroachment Permit Fee	LS	Allowance	$20,000	$20,000	$ 20,000.00	$20,000	$ 20,000.00	$20,000	$ 20,000.00	$20,000
8	ProjectWise Construction Management Software	EA	Allowance	$25,000	$25,000	$ 25,000.00	$25,000	$ 25,000.00	$25,000	$ 25,000.00	$25,000
9	Furnish new 12-inch diameter HDPE bypass piping, to be transferred to GWA at completion of project	LF	5,000			$ 26.03	$ 130,147.00	$ 15.00	$ 75,000.00	$ 29.00	$ 145,000.00
10	Furnish new 18-inch diameter HDPE bypass piping, to be transferred to GWA at completion of project	LF	5,000			$ 50.42	$ 252,096.00	$ 30.00	$ 150,000.00	$ 47.00	$ 235,000.00
11	Sum of all work associated with unexploded ordinance survey and compliance on DoD	LS	1			$ 104,148.00	$ 104,148.00	$ 650,000.00	$ 650,000.00	$ 215,900.00	$ 215,900.00
12	Sum of all work associated with unexploded ordinance survey and compliance off DoD	LS	1			$ 6,719.00	$ 6,719.00	$ 60,000.00	$ 60,000.00	$ 54,700.00	$ 54,700.00
	Phase 1 Bid Items (Manhole 2492 to Manhole 6016)										
13	Sum of all work to make repair at 178 feet downstream of MH	LS	1			$ 38,891.00	$ 38,891.00	$ 500.00	$ 500.00	$ 27,300.00	$ 27,300.00
14	Sum of all work to make repair at 109 feet upstream of MH	LS	1			$ 38,891.00	$ 38,891.00	$ 50,000.00	$ 50,000.00	$ 21,900.00	$ 21,900.00
15	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	3,779			$ 333.64	$ 1,260,841.05	$ 400.00	$ 1,511,600.00	$ 522.00	$ 1,972,638.00
16	Furnish and install 36-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	7,397			$ 403.42	$ 2,984,105.14	$ 470.00	$ 3,476,590.00	$ 501.00	$ 3,705,897.00
17	Sum of all work to Rehabilitate Manholes	EA	29			$ 11,902.52	$ 345,173.00	$ 25,000.00	$ 725,000.00	$ 5,800.00	$ 168,200.00
18	Furnish and Install New Manhole to replace MH 6018 with new 24-inch diameter PVC stub-out to accommodate Route 3 widening project, complete in	LS	1			$ 22,827.00	$ 22,827.00	$ 50,000.00	$ 50,000.00	$ 71,100.00	$ 71,100.00
19	Record Drawings	LS	1			$ 5,282.00	$ 5,282.00	$ 500.00	$ 500.00	$ 15,300.00	$ 15,300.00
	Phase 2 Bid Items (Manhole 6016 to Manhole 5916)										
20	Sum of all work to make repair at 6 feet downstream of MH	LS	1			$ 38,891.00	$ 38,891.00	$ 500.00	$ 500.00	$ 27,300.00	$ 27,300.00
21	Sum of all work to make repair at 102 feet downstream of MH	LS	1			$ 38,891.00	$ 38,891.00	$ 80,000.00	$ 80,000.00	$ 27,300.00	$ 27,300.00
22	Sum of all work to make repair at 220 feet downstream of MH	LS	1			$ 38,891.00	$ 38,891.00	$ 500.00	$ 500.00	$ 27,300.00	$ 27,300.00
23	Sum of all work to make repair at 98 feet upstream of MH 5917	LS	1			$ 38,891.00	$ 38,891.00	$ 500.00	$ 500.00	$ 16,400.00	$ 16,400.00
24	Sum of all work to make repair at 202 feet upstream of MH	LS	1			$ 38,891.00	$ 38,891.00	$ 500.00	$ 500.00	$ 16,400.00	$ 16,400.00
25	Furnish and install 18-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	1,071			$ 268.49	$ 287,553.00	$ 340.00	$ 364,140.00	$ 870.00	$ 931,770.00
26	Furnish and install 24-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	2,157			$ 305.25	$ 658,425.98	$ 350.00	$ 754,950.00	$ 1,029.00	$ 2,219,553.00
27	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	13,763			$ 367.50	$ 5,057,869.47	$ 400.00	$ 5,505,200.00	$ 469.00	$ 6,454,847.00
28	Furnish and install 36-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	3,199			$ 431.27	$ 1,379,620.89	$ 470.00	$ 1,503,530.00	$ 771.00	$ 2,466,429.00
29	Sum of all work to Rehabilitate Manholes	EA	70			$ 11,231.66	$ 786,216.00	$ 25,000.00	$ 1,750,000.00	$ 5,800.00	$ 406,000.00
30	Record Drawings	LS	1			$ 9,356.00	$ 9,356.00	$ 500.00	$ 500.00	$ 15,300.00	$ 15,300.00
	Phase 3A Bid Items (Manhole 2511 to Manhole 2492)										
31	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	3,077			$ 345.42	$ 1,062,858.88	$ 370.00	$ 1,138,490.00	$ 340.00	$ 1,046,180.00

Exhibit A - Abstract of Bids (2 of 2)

Guam Waterworks Authority **Interceptor Sewer Refurbishment** **Bid Tab** **4/26/2018**

				Engineer's Estimate		Core Tech		Granite		Insituform	
Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price	Bid Unit Price	Bid Price	Bid Unit Price	Bid Price	Bid Unit Price	Bid Price
32	Furnish and install 36-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	3,932			$ 365.36	$ 1,436,584.90	$ 450.00	$ 1,769,400.00	$ 225.00	$ 884,700.00
33	Sum of all work to Rehabilitate Manholes	EA	23			$ 9,960.35	$ 229,088.00	$ 25,000.00	$ 575,000.00	$ 5,800.00	$ 133,400.00
34	Record Drawings	LS	1			$ 4,770.00	$ 4,770.00	$ 500.00	$ 500.00	$ 6,800.00	$ 6,800.00
	Phase 3B Bid Items (Northern District WWTP Influent to Manhole 2511)										
35	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	433			$ 287.11	$ 124,319.02	$ 370.00	$ 160,210.00	$ 860.00	$ 372,380.00
36	Furnish and install 42-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work	LF	5611			$ 403.88	$ 2,266,185.83	$ 390.00	$ 2,188,290.00	$ 326.00	$ 1,829,186.00
37	Sum of all work to Rehabilitate Manholes	EA	16			$ 9,960.25	$ 159,364.00	$ 25,000.00	$ 400,000.00	$ 5,800.00	$ 92,800.00
38	Record Drawings	LS	1			$ 4,770.00	$ 4,770.00	$ 500.00	$ 500.00	$ 5,800.00	$ 5,800.00
BASE BID Total of All Unit Price Bid Items					$ 35,534,558.00		**$ 22,897,808.00**		**$ 27,178,184.00**		**$ 26,758,380.00**
Bid Alternate A					$ 30,585,767.00		$ 20,989,504.00		$ 23,856,001.00		$ 25,222,549.00
Bid Alternate B					$ 24,471,257.00		$ 19,123,798.00		$ 21,246,013.00		$ 23,419,705.00

EXHIBIT B - Recommendation Memorandum

Memorandum

414 Soledad Avenue, Suite 602
Hagatna, Guam 96910

T: 671.300.4220

Prepared for:	Guam Waterworks Authority
Project Title:	GWA Interceptor Refurbishment Project, Northern District
Project No.:	S18-003-OEA (OEA Grant OCON 676-16-001)
Subject:	Bid Evaluation and Recommendation of Award
Date:	May 8, 2018
To:	Miguel C. Bordallo, P.E., General Manager, GWA
From:	William P. Gilman, P.E., Brown and Caldwell
Copy to:	Gloria Bensan, GWA

This memorandum summarizes the evaluation of Multi-Step Bids received for the GWA Interceptor Sewer Refurbishment Project, Northern District, GWA IFB-03-ENG-2018 and presents recommendation for award.

GWA issued an Invitation For Bid for Technical Proposals (Step 1) on January 23, 2018. The following Design-Build firms submitted Technical Proposals on March 15, 2018:

- Core Tech-Hawaiian Dredging, LLC
- Granite Construction Company Guam
- Insituform Technologies, LLC

Scoring and evaluation of Step 1 Technical Proposals was performed by a GWA Evaluation Committee that found all proposals acceptable and instructed all three firms to submit price proposals and required documentation for Step 2.

Price Proposals were received from all three firms on April 26, 2018 and publicly read aloud.

Brown and Caldwell tabulated the Bids, checked quantities and extensions for accuracy (see attached Bid Tabulation sheet) and finds Core Tech-Hawaiian Dredging, LLC the apparent low bidder with a Total Base Bid Price of $22,897.808.00. Further examination of Core Tech-Hawaiian Dredging, LLC's bid indicated no unbalance, where prices are out of proportion or unusually low. Consequently, Brown and Caldwell believes Core Tech-Hawaiian Dredging, LLC to be the lowest, responsive, responsible bidder and recommends issuance of a Notice of Award.

EXHIBIT C - Bid Proposal

Core Tech - Hawaiian Dredging, LLC

388 South Marine Corps Drive, Suite 400, Tamuning, Guam 96913 T 671 473 5000 • F 671 473 5500

April 26, 2018

Mr. Miguel C. Bordallo, P.E.
General Manager
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, GU 96913

Re: Multi-Step Bid for the Design and Construction of the GWA Interceptor Sewer Refurbishment Project Northern – Technical Proposal, IFB-03-ENG-2018, GWA Project No. S18-003-OEA

Hafa Adai Mr. Bordallo,

Core Tech-Hawaiian Dredging, LLC (CHL) is pleased to submit Step 2 Price Proposal to Guam Waterworks Authority in response to this Multi-Step Bid for the Design and Construction of the GWA Interceptor Sewer Refurbishment Project, Northern District, IFB-03-ENG-2018, GWA Project No. S18-003-OEA, offering our team expertise and commitment in completing the requirements of this solicitation.

The undersigned hereby acknowledges receipt of Addendum 1, 2, 3, 4, 5, 6 & 7.

As required by the IFB, the following is authorized to negotiate on the Offeror's behalf in connection with this solicitation as stated on page 10 of CHL's Operating Agreement provided in Step 1 and which is found in the last section entitled 'Forms/Documents Required by Bid/Addendum Not Referred to Above':

Name: Conchita D. Bathan
Title: Member of Management Committee
Phone: (671) 473-5000
Fax: (671) 473-5500
Email: chit.bathan@coretechintl.com

Core Tech-Hawaiian Dredging, LLC looks forward to delivering this project for the Guam Waterworks Authority. Should you have any questions regarding our Step 2 proposal, please contact the undersigned through email or telephone.

Sincerely,

Conchita D. Bathan
Member, Management Committee
and CTI Chief Executive Officer

Cc: Ho S. Eun, CTI Chairman
J. Majkut, HDCC President
Kenneth Rekdahl P.E., DCA Vice President

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed - in whole or in part - for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offerors as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction is contained in this proposal.

Core Tech - Hawaiian Dredging, LLC

GUAM WATERWORKS AUTHORITY
Interceptor Sewer Refurbishment Project, Northern district
GWA Project No. IFB-03-ENG-2018, OEA Grant OCON676-16-01

PRICE PROPOSAL (Step 2)

Core Tech-Hawaiian Dredging, LLC
388 South Marine Corps Drive, STE 400
Tamuning, Guam 96913
Phone: (671) 473-5000
Fax: (671) 473-5500

"Core Tech-Hawaiian Dredging, LLC (CHL) agrees to abide by all terms, conditions, and provisions included in **Guam Waterworks Authority's Invitation for Project No. IFB-03-ENG-2018 GWA Interceptor Sewer Refurbishment Project** and agrees to furnish any or all items upon which prices are offered at the price set opposite each item."

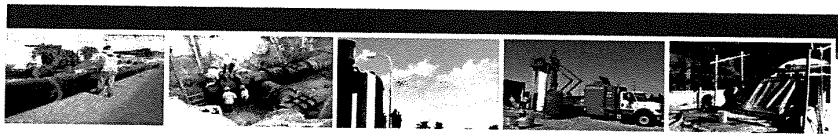
The following person is authorized to sign this proposal and negotiate on CHL's behalf with the Government in connection with this proposal:

Ms. Conchita D. Bathan
Authorized Representative and
Member of Management Committee for
Core Tech-Hawaiian Dredging, LLC
E-mail: chit.bathan@coretechintl.com

4/26/2018

Conchita D. Bathan Date

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed - in whole or in part - for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of - or in connection with - the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction is contained in this proposal.



Core Tech - Hawaiian Dredging, LLC

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Procurement Checklist

Bid Bond

Bid Proposal and Bid Schedule (Bid Form - Section 00410)

Certification of Bidder Regarding Equal Employment Opportunity (Appendix H)

Special Instructions to Bidders – Estimated Quantities (Appendix K)

Forms/Documents Required by Bid/Addendum Not Referred to Above

CHL Operating Agreement (Page 10 – Evidence of Authority to Sign)
with Company Resolution for GWA IFB-03-ENG-2018

List of Proposed Subcontractors and Proposed Suppliers

Acknowledgement of Addenda

Use or disclosure of data contained on this sheet is subject to the restriction on the cover page of this proposal.

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:
Core Tech - Hawaiian Dredging, LLC
388 South Marine Corps Drive, Suite 400
Tamuning, Guam 96913

SURETY *(Name, and Address of Principal Place of Business)*:
Fidelity and Deposit Company of Maryland
1299 Zurich Way, 5th Floor
Schaumburg, IL 60196 - 1056

OWNER *(Name and Address)*:
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, Guam 96913

BID
Bid Due Date: April 26, 2018
Description *(Project Name— Include Location)*
GWA Interceptor Sewer Refurbishment Project, Northern District
Bid No. IFB-03-ENG-2018
GWA Project No. S18-003-OEA

BOND
Bond Number: N/A
Date: April 4, 2018
Penal sum ***Fifteen Percent (15%) of Bid Amount*** $ ----------
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER	**SURETY**
Core Tech - Hawaiian Dredging, LLC (Seal)	Fidelity and Deposit Company of Maryland (Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By:	By:
Signature	Signature (Attach Power of Attorney)
Conchita D. Bathan	Pamela A. Cruz
Print Name	Print Name
Member, Management Committee Chief Executive Officer	Attorney-In-Fact
Title	Title
Attest:	Attest:
Signature Johann Cruz	Signature

Countersigned by: Takagi & Associates, Inc. Resident General Agent

Title Chief Financial Officer

Title

Note: Addresses are to be used for giving any required notice.
Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **MICHAEL BOND, Vice President,** in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Hidenobu TAKAGI, Pamela A. CRUZ and Jo TAKAGI, all of Tumon, Guam, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings,** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND,** this 23rd day of November, A.D. 2016.

ATTEST:

ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: _____

Secretary
Eric D. Barnes

_____

Vice President
Michael Bond

State of Maryland
County of Baltimore

On this 23rd day of November, A.D. 2016, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **MICHAEL BOND, Vice President, and ERIC D. BARNES, Secretary,** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.

_____

Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2019

POA-F 016-0012A

GOVERNMENT OF GUAM
DEPARTMENT OF REVENUE AND TAXATION
OFFICE OF THE BANKING AND INSURANCE COMMISSIONER

CERTIFICATE OF AUTHORITY

RENEWAL 239

Know All Men By These Presents That:

Name **FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

Address 1400 AMERICAN LANE
SCHAUMBURG IL 60196 1056

Classes of Insurance Authorized

ACCIDENT & HEALTH
FIDELITY & SURETY
FIRE
MARINE
MISCELLANEOUS
MOTOR VEHICLE
PROP. DAMAGE & LIABILITY
WORKMENS COMP

Having complied with the Insurance Law of Guam, is hereby authorized to transact as an insurer, the above named Classes of Insurance in Guam from the 01 ***day of*** July , ***20*** 17 , ***to the*** 01 ***day of*** July , ***20*** 18 , ***unless authority is revoked for failure to comply with the law.***

General Agent(s):

TAKAGI & ASSOCIATES INC
CASSIDY'S ASSOCIATED INSURERS INC

In Witness Whereof, I have hereunto subscribed my name officially and have hereon impressed my Seal of Office at the City of Hagatña, Guam on this 06 ***day of*** June ***A.D. 20*** 17.

Artemio B Ilagan

ARTEMIO B. ILAGAN
Banking and Insurance Commissioner

Doc. No. 34GL-18-1912.*
188
CCU Regular Meeting May 22, 2018 - NEW BUSINESS

SECTION 00410

BID FORM

GWA Interceptor Sewer Refurbishment

GWA IFB-03-ENG-2018

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Guam Waterworks Authority
GWA Engineering Division, Rm 202
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, GU 96913

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 120 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.	Addendum, Date
1	February 8, 2018
2	February 23, 2018
3	March 2, 2018

Refer to attachment for additional Addendum No./Date List.

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the e execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1	Mobilization, Insurance, Bonds, and Demobilization	LS	1	2,254,477.84	$2,254,477.84
2	All work to provide survey and legal descriptions for preparation of permanent easements on Ancestral Lands.	LS	1	38,795.00	$38,795.00
3	All work required for field verification, design and Design Professional Services, including but not limited to design submittals, flow management plans, meetings, permitting assistance, coordination, and other services to provide full design support for the project	LS	1	1,528,978.00	$1,528,978.00
4	Archaeological Survey and Report for complete project	LS	Allowance	40,000.00	$40,000
5	Building Permit Fees	LS	Allowance	85,000.00	$85,000
6	Plan Check Fee	LS	Allowance	55,000.00	$55,000
7	Highway Encroachment Permit Fee	LS	Allowance	20,000.00	$20,000
8	ProjectWise Construction Management Software	EA	Allowance	25,000.00	$25,000
9	Furnish new 12-inch diameter HDPE bypass piping, to be transferred to GWA at completion of project	LF	5,000	26.0294	$130,147.00
10	Furnish new 18-inch diameter HDPE bypass piping, to be transferred to GWA at completion of project	LF	5,000	50.4192	$252,096.00
11	Sum of all work associated with unexploded ordinance survey and compliance on DoD property	LS	1	104,148.00	$104,148.00
12	Sum of all work associated with unexploded ordinance survey and compliance off DoD property	LS	1	6,719.00	$6,719.00
Phase 1 Bid Items (Manhole 2492 to Manhole 6016)					
13	Sum of all work to make repair at 178 feet downstream of MH 6036	LS	1	38,891.00	$38,891.00
14	Sum of all work to make repair at 109 feet upstream of MH 6017	LS	1	38,891.00	$38,891.00

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
15	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place,	LF	3,779	333.6441	$1,260,841.05
16	Furnish and install 36-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	7,397	403.4210	$2,984,105.14
17	Sum of all work to Rehabilitate Manholes	EA	29	11,902.5172	$345,173.00
18	Furnish and Install New Manhole to replace MH 6018 with new 24- inch diameter PVC stub-out to accommodate Route 3 widening project, complete in place	LS	1	22,827.00	$22,827.00
19	Record Drawings	LS	1	5,282.00	$5,282.00
Phase 2 Bid Items (Manhole 6016 to Manhole 5916)					
20	Sum of all work to make repair at 6 feet downstream of MH 5926	LS	1	38,891.00	$38,891.00
21	Sum of all work to make repair at 102 feet downstream of MH 5929	LS	1	38,891.00	$38,891.00
22	Sum of all work to make repair at 220 feet downstream of MH 5432	LS	1	38,891.00	$38,891.00
23	Sum of all work to make repair at 98 feet upstream of MH 5917	LS	1	38,891.00	$38,891.00
24	Sum of all work to make repair at 202 feet upstream of MH 5917	LS	1	38,891.00	$38,891.00
25	Furnish and install 18-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	1,071	268.4902	$287,553.00
26	Furnish and install 24-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	2,157	305.2508	$658,425.98
27	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	13,763	367.4976	$5,057,869.47
28	Furnish and install 36-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	3,199	431.2663	$1,379,620.89

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
29	Sum of all work to Rehabilitate Manholes	EA	70	11,231.6571	$786,216.00
30	Record Drawings	LS	1	9,356.00	$9,356.00
Phase 3A Bid Items (Manhole 2511 to Manhole 2492)					
31	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place.	LF	3,077	345.4205	$1,062,858.88
32	Furnish and install 36-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place.	LF	3,932	365.3573	$1,436,584.90
33	Sum of all work to Rehabilitate Manholes	EA	23	9,960.3478	$229,088.00
34	Record Drawings	LS	1	4,770.00	$4,770.00
Phase 3B Bid Items (Northern District WWTP Influent to Manhole 2511)					
35	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	433	287.1109	$124,319.02
36	Furnish and install 42-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	5611	403.8827	$2,266,185.83
37	Sum of all work to Rehabilitate Manholes	EA	16	9,960.2500	$159,364.00
38	Record Drawings	LS	1	4,770.00	$4,770.00
BASE BID Total of All Unit Price Bid Items					$22,897,808.00

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Total of Unit Price Bids = Total Base Bid Price $ 22,897,808.00

5.02 **Bid Alternate A:** Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1	Mobilization, Insurance, Bonds, and Demobilization	LS	1	2,168,766.00	$2,168,766.00
2	All work to provide survey and legal descriptions for preparation of permanent easements on Ancestral Lands.	LS	1	38,815.00	$38,815.00
3	All work required for field verification, design and Design Professional Services, including but not limited to design submittals, flow management plans, meetings, permitting assistance, coordination, and other services to provide full design support for the project	LS	1	1,500,472.00	$1,500,472.00
4	Archaeological Survey and Report for complete project	LS	Allowance	40,000.00	$40,000
5	Building Permit Fees	LS	Allowance	85,000.00	$85,000
6	Plan Check Fee	LS	Allowance	55,000.00	$55,000
7	Highway Encroachment Permit Fee	LS	Allowance	20,000.00	$20,000
8	ProjectWise Construction Management Software	EA	Allowance	25,000.00	$25,000
9	Furnish new 12-inch diameter HDPE bypass piping, to be transferred to GWA at completion of project	LF	5,000	26.0428	$130,214.00
10	Furnish new 18-inch diameter HDPE bypass piping, to be transferred to GWA at completion of project	LF	5,000	50.4452	$252,226.00
11	Sum of all work associated with unexploded ordinance survey and compliance on DoD property	LS	1	104,202.00	$104,202.00
12	Sum of all work associated with unexploded ordinance survey and compliance off DoD property	LS	1	6,723.00	$6,722.00
Phase 1 Bid Items (Manhole 2492 to Manhole 6016)					
13	Sum of all work to make repair at 178 feet downstream of MH 6036	LS	1	38,911.00	$38,911.00
14	Sum of all work to make repair at 109 feet upstream of MH 6017	LS	1	38,911.00	$38,911.00
15	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place,	LF	3,779	340.5279	$1,286,855.00
16	Furnish and install 36-inch diameter CIPP, including service	LF	7,397	411.6834	$3,045,222.00

	connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place				
17	Sum of all work to Rehabilitate Manholes	EA	29	12,110.0000	$351,190.00
18	Furnish and Install New Manhole to replace MH 6018 with new 24- inch diameter PVC stub-out to accommodate Route 3 widening project, complete in place	LS	1	22,839.00	$22,839.00
19	Record Drawings	LS	1	5,284.00	$5,284.00
Phase 2 Bid Items (Manhole 6016 to Manhole 5916)					
20	Sum of all work to make repair at 6 feet downstream of MH 5926	LS	1	38,911.00	$38,911.00
21	Sum of all work to make repair at 102 feet downstream of MH 5929	LS	1	38,911.00	$38,911.00
22	Sum of all work to make repair at 220 feet downstream of MH 5432	LS	1	38,911.00	$38,911.00
23	Sum of all work to make repair at 98 feet upstream of MH 5917	LS	1	38,911.00	$38,911.00
24	Sum of all work to make repair at 202 feet upstream of MH 5917	LS	1	38,911.00	$38,911.00
25	Furnish and install 18-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	1,071	276.6825	$296,327.00
26	Furnish and install 24-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	2,157	312.1196	$673,242.00
27	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	13,763	374.3991	$5,152,855.00
28	Furnish and install 36-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	3,199	438.2010	$1,401,805.00
29	Sum of all work to Rehabilitate Manholes	EA	70	11,438.7857	$800,715.00
30	Record Drawings	LS	1	9,360.00	$9,360.00
Phase 3A Bid Items (Manhole 2511 to Manhole 2492)					
31	Perform cleaning and CCTV inspection of 30-inch diameter sewer	LF	3,077	91.1505	$280,470.00

32	Perfrom cleaning and CCTV inspection of 36-inch diameter sewer.	LF	3,932	101.5918	$399,459.00
Phase 3B Bid Items (Northern District WWTP Influent to Manhole 2511)					
33	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	433	287.6051	$124,533.00
34	Furnish and install 42-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	5611	404.5855	$2,270,129.00
35	Sum of all work to Rehabilitate Manholes	EA	16	10,353.0000	$165,648.00
36	Record Drawings	LS	1	$4,777.00	$4,777.00
Bid Alternate A: Total of All Unit Price Bid Items					$20,989,504.00

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Total of Unit Price Bids = Total Bid Alternate A Price $ 20,989,504.00

5.03 **Bid Alternate B:** Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1	Mobilization, Insurance, Bonds, and Demobilization	LS	1	2,113,085.73	$2,113,085.73
2	All work to provide survey and legal descriptions for preparation of permanent easements on Ancestral Lands.	LS	1	38,837.00	$38,837.00
3	All work required for field verification, design and Design Professional Services, including but not limited to design submittals, flow management plans, meetings, permitting assistance, coordination, and other services to provide full design support for the project	LS	1	1,475,150.00	$1,475,150.00
4	Archaeological Survey and Report for complete project	LS	Allowance	40,000.00	$40,000
5	Building Permit Fees	LS	Allowance	85,000.00	$85,000
6	Plan Check Fee	LS	Allowance	55,000.00	$55,000
7	Highway Encroachment Permit Fee	LS	Allowance	20,000.00	$20,000
8	ProjectWise Construction Management Software	EA	Allowance	25,000.00	$25,000
9	Furnish new 12-inch diameter HDPE bypass piping, to be transferred to GWA at completion of project	LF	5,000	26.0574	$130,287.00
10	Furnish new 18-inch diameter HDPE bypass piping, to be transferred to GWA at completion of project	LF	5,000	50.4734	$252,367.00
11	Sum of all work associated with unexploded ordinance survey and compliance on DoD property	LS	1	104,261.00	$104,261.00
12	Sum of all work associated with unexploded ordinance survey and compliance off DoD property	LS	1	6,727.00	$6,727.00
Phase 1 Bid Items (Manhole 2492 to Manhole 6016)					
13	Sum of all work to make repair at 178 feet downstream of MH 6036	LS	1	38,933.00	$38,933.00
14	Sum of all work to make repair at 109 feet upstream of MH 6017	LS	1	38,933.00	$38,933.00
15	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place,	LF	3,779	347.4345	$1,312,954.98
16	Furnish and install 36-inch diameter CIPP, including service connection reinstatement, flow	LF	7,397	418.6303	$3,096,608.33

	management, traffic control, and all other necessary work, complete-in-place				
17	Sum of all work to Rehabilitate Manholes	EA	29	12,452.5172	$361,123.00
18	Furnish and Install New Manhole to replace MH 6018 with new 24- inch diameter PVC stub-out to accommodate Route 3 widening project, complete in place	LS	1	22,852.00	$22,852.00
19	Record Drawings	LS	1	5,286.00	$5,286.00
Phase 2 Bid Items (Manhole 6016 to Manhole 5916)					
20	Sum of all work to make repair at 6 feet downstream of MH 5926	LS	1	38,933.00	$38,933.00
21	Sum of all work to make repair at 102 feet downstream of MH 5929	LS	1	38,933.00	$38,933.00
22	Sum of all work to make repair at 220 feet downstream of MH 5432	LS	1	38,933.00	$38,933.00
23	Sum of all work to make repair at 98 feet upstream of MH 5917	LS	1	38,933.00	$38,933.00
24	Sum of all work to make repair at 202 feet upstream of MH 5917	LS	1	38,933.00	$38,933.00
25	Furnish and install 18-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	1,071	283.5537	$303,686.01
26	Furnish and install 24-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	2,157	319.0107	$688,106.01
27	Furnish and install 30-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	13,763	381.3249	$5,248,174.60
28	Furnish and install 36-inch diameter CIPP, including service connection reinstatement, flow management, traffic control, and all other necessary work, complete-in-place	LF	3,199	445.1629	$1,424,076.12
29	Sum of all work to Rehabilitate Manholes	EA	70	11,780.96	$824,667.00
30	Record Drawings	LS	1	9,364.00	$9,364.00
Phase 3A Bid Items (Manhole 2511 to Manhole 2492)					
31	Perform cleaning and CCTV inspection of 30-inch diameter sewer.	LF	3,077	91.33	$281,034.10
32	Perform cleaning and CCTV inspection of 36-inch diameter sewer.	LF	3,932	101.80	$400,261.09

Phase 3B Bid Items (Northern District WWTP Influent to Manhole 2511)					
33	Perform cleaning and CCTV inspection of 30-inch diameter sewer	LF	433	62.64	$27,121.00
34	Perform cleaning and CCTV inspection of 42-inch diameter sewer	LF	5611	89.15	$500,238.04
Bid Alternate B: Total of All Unit Price Bid Items					$19,123,798.00

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Total of Unit Price Bids = Total Bid Alternate B Price $ 19,123,798.00

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security;
B. List of Proposed Subcontractors;
C. List of Proposed Suppliers;

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

Core Tech-Hawaiian Dredging, LLC

By:

[Signature]

[Printed name] Conchita D. Bathan, Member of Management Committee

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature]

[Printed name] Johann Cruz

Title: Chief Financial Officer

Submittal Date: April 26, 2018

Address for giving notices:

388 South Marine Corps Drive, STE 400

Tamuning, GU 96913

Telephone Number: (671) 473-5000

Fax Number: (671) 473-5500

Contact Name and e-mail address: Conchita D. Bathan

chit.bathan@coretechintl.com

Bidder's License No.: License#CLB15-1204 (2018 Contractor's License)
(where applicable)

APPENDIX H

CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

GENERAL

In accordance with Executive Order 11246 (30 F.R. 12319-25), the implementing rules and regulations thereof, and orders of the Secretary of Labor, a Certification regarding Equal Opportunity is required of bidders or prospective Contractors and their proposed sub-contractors prior to the award of Contract or sub-contracts.

CERTIFICATION OF BIDDER

Bidder's Name: Core Tech-Hawaiian Dredging, LLC

Address: 388 South Marine Corps Drive, STE 400, Tamuning, Guam 96913

Internal Revenue Service Employer Identification No.: 66-0848212

1. Participation in a previous Contract or sub-contract.

   a. Bidder has participated in a previous Contract or sub-contract subject to the Equal Opportunity *clause* *[ ] Yes [X] No*

   b. Compliance reports were required to be filled in connection with such Contract or sub-contract ..... [ ] Yes [X] No

   c. Bidder has filed all compliance reports required by Executive Orders 10925, 11114, 11246 or by regulations of the Equal Employment Opportunity Commission issued pursuant to Title VII or the Civil Rights Act of 1964 ..... [ ] Yes [ ] No N/A

   d. If answer to item c is "NO", please explain in detail on reverse side of this certification.

2. Dollar Amount of Bid: $ See attached Bid Proposal Form.

3. Anticipated performance period 860 days.

4. Expected total number of employees who will perform the proposed construction:
Approximately 30 employees.

5. Non-segregated Facilities

a. Notice to Prospective Contractor.

(1) A Certification of Non-segregated Facilities, as required by the May 9, 1967, order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted to the recipient prior to the award of a Contract exceeding $10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

(2) Contractors receiving Contract awards exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the following notice to prospective sub-contractors for supplies and construction Contracts where the sub-contracts exceed $10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

b. Notice to Prospective sub-contractors of Requirements for Certification of Non-segregated Facilities.

(1) A Certification of Non-segregated Facilities, as required by the May 9, 1967, order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a sub-contract exceeding $10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

(2) Contractors receiving sub-contract awards exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of this notice to prospective sub-contractors for supplies and construction Contracts, where the sub-contractors exceed $10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

c. Certification of Non-segregated Facilities.

The Contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this Contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, or housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin because of habit, local custom, or otherwise. The Contractor agrees that (except where he has obtained identical certifications from proposed sub-contractors for specific time periods) he will obtain identical certifications in duplicate from proposed sub-contractors prior to the award of sub-contracts exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that he will retain the duplicate of such certifications in his files. The Contractor will include the original in his Bid Package.

6. Race of ethnic group designation of bidder. Enter race or ethnic group in the appropriate box:

[ ]	African American	[ ] Spanish American	[ ] Oriental
[ ]	Aleut	[ ] American Indian	[ ] Eskimo
[ ]	White (other than Spanish American)		
[X]	Pacific Islander		

REMARKS:
Certification: the information above is true and complete to the best of my knowledge and belief.

Name and Title of Signer:

Conchita D. Bathan, Member of Management Committee

(Please Type)

(Signature)

04/26/2018

(Date)

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

APPENDIX K

SPECIAL INSTRUCTIONS TO BIDDERS – ESTIMATED QUANTITIES

For use only in indefinite quantity Contracts or where there has been an estimated amount included in GWA's bid specifications that is to be used to determine the bid price

Bidders are hereby served notice that the following Directives or information described below must be taken into account when preparing the Bid Proposal. The Bidder shall acknowledge the directives by signing and submitting this section with their Bid Proposal.

Directive #1

The bidder is cautioned to note that while the quantities specified in the Bid Schedule are based upon the best information available to GWA, the quantities for the items listed in the Bid Schedule may or may not be completely accurate. Thus, GWA makes no assurances or warranty to any bidder that the quantities listed are 100% accurate.

I, Conchita D. Bathan being an Authorized Representative acknowledge the directive as describe above and ensure the Bid Proposal as submitted addresses the directive.

Core Tech-Hawaiian Dredging, LLC
(Company Name)

(Signature)

04/26/2018
(Date)



Evidence of Authority to Sign

Core Tech-Hawaiian Dredging, LLC

Operating Agreement

Use or disclosure of data contained on this sheet is subject to the restriction on the cover page of this proposal.

LLC-2104

DEPT. OF REVENUE & TAXATION
GOVERNMENT OF GUAM
OCT 30 2015
BUSINESS REGISTRATION

OPERATING AGREEMENT

Of

CORE TECH – HAWAIIAN DREDGING, LLC

October 23, 2015

DEPT OF REVENUE & TAXATION
GOVERNMENT OF GUAM
OCT 30 2015
BUSINESS REGISTRATION

Operating Agreement

Of

CORE TECH – Hawaiian Dredging, LLC
A Guam Limited Liability Company

THIS AGREEMENT ("Agreement") is effective as of October 23, 2015, by and between **CORE TECH INTERNATIONAL CORPORATION ("CTI")**, a Guam corporation, and **HDCC GUAM, LLC ("HDCC")**, a Nevada limited liability company, and is the Operating Agreement of **CORE TECH – HAWAIIAN DREDGING, LLC**, a Guam limited liability company (the "Company"). CTI and HDCC referred to herein individually as a "Member" and collectively as the "Members."

RECITALS:

A. WHEREAS, the Interim General Manager, Mark G. Miller, of Guam Waterworks Authority, has issued on August 31, 2015, an INVITATION TO BID, IFB-07-ENG-2015 for a Multi-step bid for the construction of Agat-Santa Rita Wastewater Treatment Plant Replacement, GWA Project No. S14-002-BND ("Project");

B. WHEREAS, HDCC and CTI believe that they have complementary capabilities for the pursuit of bidding on the Project and, if successful, enter into a contract or contracts with to perform the work on the Project; and

C. WHEREAS, the Members believe there are other future construction projects in Guam which they may want the Company to pursue on a case-by-case basis;

NOW, THEREFORE, in consideration of the mutual agreements, promises, and undertakings hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, the Members hereto agree that the following shall constitute the operating agreement of the Company.

Article 1
The Project

1.1 **The Contract.** The Members have agreed to form a limited liability company for the sole purpose of preparing and submitting a proposal (the "Proposal") to the Government of Guam ("Client") in response to the Invitation to Bid ("IFB") for the Project and, if successful, enter into a contract to perform the Project ("Contract"). The terms and conditions of this Agreement govern the relationship of the Members and the rendering of services required under this Agreement and under any subsequent contractual agreement with the Client relating to the Project, unless otherwise agreed to by the Members in writing.

1.2 **Services.** In connection with the Project, each Member shall perform services in the functional areas as set forth in **Attachment 1** - Scope of Work/ Percentage Interests to this Agreement. It is the intent of the Members, as part of each section or portion of the work as set forth in Attachment 1, to mutually agree upon division of responsibility among the Members such that the full work scope of each section or portion can be accomplished in the most efficient and cost effective manner. Except as specified in Section 4.5 of this Agreement, no Member to this Agreement shall enter into a separate agreement directly with the Client or any third party for services in connection with the Project without the prior written approval of the other Member.

1.4 **Expenses.** Except as may be mutually agreed upon in writing by the Management Committee, each Member shall bear its own costs and expenses in connection with the negotiation of this Agreement, preparation of the Proposal for the Project, negotiation and execution of the Contract, including, but not limited to, the fees of any attorney, financial advisor, or other consultant services.

1.5 **Employees.** Unless otherwise agreed by the Management Committee, the Company shall have no employees. Each Member's personnel will remain on the payroll of the Member that employs them.

1.6 **Future Projects.** Should the Members agree to have the Company pursue future projects on Guam, this Agreement shall be amended to set forth the details concerning such project or projects and the interests and responsibility of the Members with regard to the same.

Article 2
Formation of the Company

2.1 **Company.** Subject to the terms and conditions of this Agreement, the Members hereby agree to jointly form this Guam limited liability company named "Core Tech – Hawaiian Dredging, LLC", under and in accordance with the laws of the Guam, which shall engage in the business described herein.

2.2 **Purpose.** The purpose and business of the Company shall be (a) to prepare and submit a Proposal for and, if successful, perform the Project; (b) to exercise all other powers necessary and reasonably connected with the Company's business (as limited hereinabove) which may legally be exercised by limited liability companies under Guam law; and (c) to engage in all activities necessary, customary, convenient, or incident to perform the Project.

2.3 **Place of Business.** The principal place of business of the Company shall be located at 388 South Marine Corps Drive, Suite 400, Tamuning, Guam 96913, or such other place as the Management Committee may from time to time determine.

2.4 **Term.** Unless terminated sooner pursuant to this Article 7, this Agreement shall remain in full force and effect until the earliest of:

2.4.1 Dissolution by written agreement of the Members;

2.4.2 Completion of the Contract and all work and obligations under the Contract represented by the later of the issuance of a final payment release under the Contract awarded to the Company and satisfaction of any warranty obligations or ten years from the substantial completion of the Contract;

2.4.3 An official government announcement that the IFB for the Project has been canceled; or

2.4.4 Sixty (60) days after the award of the contract(s) for the Project to another contractor to the exclusion of the Company, except that, should a bid protest be filed challenging the award, the Agreement shall remain in effect throughout the protest period and during any corrective action other than cancellation of the IFB and re-solicitation.

Article 3
Capital – Ownership Interests – Bank Account

3.1 **Capital Structure**. The capital structure of the Company shall consist of one (1) class of ownership. The Company shall maintain a separate capital account of each Member of the Company. Each Member shall contribute initial capital, in such amount or amounts as the Management Committee shall determine, to cover administrative costs of the Company. Such capital contributions shall be made by each Member in proportion to their respective ownership interests. The interests of each Member in the Company shall be as set forth in **Attachment 1 -** Scope of Work/ Percentage Interests to this Agreement.

3.2 **Additional Contributions.** The Management Committee may require Members to make any additional Capital Contributions to their respect ownership accounts in proportion to their respective percentage interests.

3.3 **Failure to Contribute.** If a Member fails to timely provide a required Capital Contribution, the Company may take such action as it deems necessary and appropriate including but not limited to instituting a court proceeding to obtain payment, canceling the Member's Company Interest, or exercising any other right or remedy available at law or equity.

3.4 **Allocation of Profits and Losses.** Profits and losses for any Fiscal Year (and each item of income, gain, loss, and deduction entering into the computation thereof) shall be allocated among the Members (and credited to their respective Capital Accounts) in accordance with their Ownership Interests set forth in Section 3.1 above.

3.5 **Accounting**. The Company shall jointly retain an accountant to perform such duties as may be determined by the Management Committee. For the purposes of this Agreement, certified account balances of the accountant shall be final, conclusive and binding upon the Members.

3.6 **Bank Accounts.** The Company will establish and maintain bank accounts in the name of Core Tech – Hawaiian Dredging, LLC. Such bank accounts (the "LLC Accounts") may be opened in such financial institutions as may be determined by the Management Committee. Each Member shall designate an individual or individuals authorized on its behalf to endorse checks deposited into the LLC Accounts and to sign checks drawn against the LL Accounts. Except as otherwise authorized by the Management Committee, all checks drawn against the LLC Accounts shall require the signature of the each Member of the Company or their authorized representative. All payments received by the Company in connection with this Agreement shall be promptly deposited in the LLC Accounts and invoices received by the Company shall be paid promptly by wire transfer or by check drawn against such account.

Article 4
Rights and Obligations of Members

4.1 **Limited Liability.** Except as otherwise provided for in this Agreement, no Member shall be personally liable for any debts, liabilities, or obligations of the Company; provided that each Member shall be responsible for the making of any Capital Contribution required to be made to the Company by such Member pursuant to the terms hereof, and for the amount of any distribution made to such Member that must be returned to the Company pursuant to the terms hereof.

4.2 **Liability of a Member to the Company.** When a Member has received a distribution made by the Company in violation of this Agreement or Guam law, the Member is liable to the Company for a period of six (6) years after such a prohibited distribution for the amount of the wrongful distribution. This provision is intended to be in compliance with Guam law.

4.3 **Survival of Obligations.** Dissolution of the Company shall not release any Member from any liability which at the time of dissolution has already accrued to such Member or for any obligations to the other Members that explicitly survive dissolution.

4.5 **Exclusivity.** Except as indicated below or as otherwise indicated in this Agreement, no Member or its affiliates shall participate in any manner in the submission of a proposal to Client in response to the IFB or include the use of a Member's name or experience in any such proposal for either the Project or any competitive proposal with respect to the Project thereunder, nor take any action detrimental to, or in conflict with, the Company's opportunity with respect to such proposal. Except as provided above with respect to the Project, this Agreement shall in no manner prevent any Member from pursuing work for any current or potential client (including, but not limited to, Client), and associating with any other persons or companies for such purposes, so long as the contemplated work or association does not involve, or create a conflict of interest for, the Project. Should the Parties execute an agreement to pursue other projects on Guam, the Members' obligations with respect to such work shall be set forth in a separate written agreement.

Article 5
Management of the Company

5.1 **Management of the Company.** The Managing Member of the Company shall be CTI. The business and affairs of the Company including, but not limited to, assignment and reassignment of services between the Members, preparation of the schedule of services, settlement of disputes with the Client, and any other matters affecting the performance of services under this Agreement, shall be managed by and under the direction of the Company's management team known as the "Management Committee", which shall be composed of four (4) representatives (the "Management Committee representatives") two (2) of which shall be from (or designated by) CTI, and two (2) of which shall be from HDCC. A representative of the Managing Member shall preside over all meetings of the Management Committee. Each Member shall designate, in writing, the names of its representatives and an alternate for each. In no event shall the Project Manager or Deputy Project Manager serve as a Management Committee representative. The power to act for or to bind the Company shall be vested in the Management Committee, subject to the Management Committee's authority to delegate powers and duties and the terms of this Agreement.

The initial members of the Management Committee are:

For CTI	Ho S. Eun Chit Bathan
For HDCC:	Gerry Majkut Tom Valentine

5.2 **Vacancy on the Management Committee.** Each Member agrees to maintain its number of designated representatives on the Management Committee for the duration of this Agreement and the Project. If, for any reason, a Management Committee representative position becomes vacant, the Member holding that position shall replace promptly the position with a new representative.

5.3 **Manner of Acting – Consent, Disagreements and Deadlock.**

5.3.1 Unanimous Consent. The Members agree that every act or decision done or made by the Management Committee shall be by unanimous vote at a meeting duly held by the Management Committee representatives.

5.3.2 Actions or Decisions. The following actions must be agreed upon unanimously by the Members prior to implementation by the Company: (i) act in contravention of this Agreement or the Company's Articles of Organization; (ii) act in a manner that would make it impossible to carry on the business of the Company except in furtherance of an approved sale of the assets of the Company or dissolution and liquidation of the Company; (iii) act in a manner that would subject any Member to liability in any jurisdiction; (iv) voluntarily take any act of bankruptcy; (v) change the Company's fiscal year; (vi) refusal to be taxable as a partnership for federal or state income tax purposes; (vii) submit any matter to litigation or other binding dispute resolution process, confess any judgment against the Company, settle any lawsuit or claim; (viii) acquire, sell, license, or lease, or otherwise dispose of any asset of the Company, including in a series of connected transactions; (ix) assign or incur

any debt; (x) loan any money; (xi) make any distributions to any Member in conflict with this Agreement or the Ownership Interests specified herein; (xii) enter into or offer to enter into any contract or agreement to perform services or provide products; (xiii) issue any performance, bonding or process guarantees; (xiv) allow any lien to be placed on any major asset; (xv) select any auditors, accountants, attorneys, officers, or bankers of the Company; (xvi) enter into any lease, sale or purchase of any Company property; (xvii) issue any public release or advertisement regarding this Agreement or the Contract without the written approval of all Members, such consent not to be unreasonably withheld and such approved public release or advertisement shall mention all Members; (xviii) take any other action required of the Management Committee by this Agreement; (xix) take any action arising out of any matter brought to Management Committee by a Member; (xx) proposed bid price to submit to the Client; (xxi) dissolve the Company; or (xxii) do any of the following which by Guam law, 18 GCA §15114(D)(2), requires the unanimous decision of the Members: (A) to continue the business after dissolution; (B) Approval of transfer of a membership interest and admission of the assignee as a member; (C) Any amendment of the Articles of Organization or this Operating Agreement.

5.3.3 Consent Disagreement. The Members shall attempt in an amicable and expeditious manner to settle any disagreement that may arise between them in connection with implementing any action that requires unanimous consent ("Consent Disagreement"). The Members recognize the possibility that a Consent Disagreement will lead to deadlock and, in such event, agree to follow the procedures set forth in Sections 5.3.4 below to resolve the matter, notwithstanding any other provision in this Agreement; provided, however, that pending the review of such matter by the Referee, the performance of the project and this Agreement shall not be delayed or hindered by reason thereof.

5.3.4 Resolution by Referee. Should the Members, or their authorized representatives, fail to resolve the Consent Disagreement within five (5) days after having convened, the Members agree to appoint a neutral person ("Referee") with appropriate qualifications and experience to facilitate resolution of the disagreement. The Referee shall be selected from a list furnished by the American Arbitration Association, unless otherwise agreed to in writing by the Members. If the Members are unable to agree on the Referee, the Members shall proceed in accordance with the Wind Down provision below. If the Members are able to agree on the Referee, the cost of the Referee will be shared equally among the Members. The Referee will be bound to confidentiality and will be given wide latitude to review available information from the Members. Within five (5) days (or such longer period as may be necessary as determined by the Referee or as agreed upon in writing by the Members), the Referee will document in a written memorandum to the Members the Referee's recommendation to resolve the Consent Disagreement. The Referee's recommendation shall be adopted and implemented by the Members after five (5) days of the recommendation (or sooner if mutually agreed in writing by the Members) unless one Member gives notice (the "Rejection Notice") to the other Member(s) within such five (5) day period

stating that the implementation of the Referee's decision will be materially adverse to the interests of such Member.

5.3.5 Wind Down. If the Members are unable to agree on the Referee or if one Member issues a Rejection Notice, then, within ten (10) days of one Member determining that the Members are unable to agree on the Referee or five (5) days of the giving of the Rejection Notice (as the case may be), one Member may issue a notice in writing ("Deadlock Notice") to the other Members. The Deadlock Notice shall contain a proposed course of action to break the deadlock.

If the Members receiving the Deadlock Notice agree in writing within seven (7) days to the proposed course of action described in the Deadlock Notice, then the Consent Disagreement shall be resolved on such basis. If the Members receiving the Deadlock Notice do not so agree, then the following provisions shall apply:

5.3.5.1 All work under the Contract existing at such time will be performed in accordance with the Company's contractual obligations, and the Members agree to satisfactorily perform and complete their portions of the work in good faith and in accordance with their respective contractual obligations;

5.3.5.2 The Company will pursue such course of action as may be in the best interests of all members.

Any notice given under this Section 5.3.5 will be made by certified mail, return-receipt requested.

5.4 **Staffing.**

5.4.1 The Members expect that the work of the Company will be performed through agreements with the Members to perform work under the Contract. Notwithstanding the foregoing, the Members understand and recognize that certain tasks with respect to the overall management of the Company need to be performed by the Company outside of such agreements, such as, but not limited to, retaining and supervising the Company's auditors (the "G&A Tasks"). With respect to such G&A Tasks, the Members agree that they shall supply to the Company such of the Member's supervisory, managerial, and other personnel as shall reasonably be required in order to successfully perform the tasks related to overall management of the Company, as determined by the Management Committee.

5.4.2 The Project Manager: The Project Manager shall, subject to the direction and control of the Management Committee, have overall management responsibilities for the Project.

Article 6
Insurance- Bonds

6.1 **Company-Placed Insurance**

6.1.1 The Members shall make certain that the Company purchases and maintains, in a company or companies lawfully authorized to do business in place in which the Project work is located insurance required by the Contract. The Members shall also make certain that the Company purchases and maintains, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project work is located, the types and limits of insurance sufficient to cover reasonably foreseeable third party personal injury, property damages and loss or damage to the project during construction and other risks, as considered appropriate for scope being undertaken or required by the Contract and Task Orders thereunder ("Company-placed insurance")

6.1.2 The exact limits of insurance to be purchased, as well as the overall structure of the insurance Project will be determined by the Management Committee during the Proposal preparation process and prior to the submission of a proposal for any Task Order, including the seed project.

6.1.3 The Management Committee will approve the purchase of the insurance with consideration as to price, terms, conditions, exclusions, limitation, reputation, solvency and other factors related to assuring that the insurance will respond to the perils for which it was obtained. All Company-placed insurance will be agreed upon by the Members and placed by the Members.

6.1.4 The Company-placed insurance shall be maintained by the Company from the commencement of any services under the Contract until all services to be performed by the Members under the Contract have been completed or until such time as this Agreement has been terminated, whichever is later.

6.2 **Bonding**

The Company will provide the Client with the bonding required by the IFB, including, but not limited to, a bid bond and performance and payment bonds Project. It is understood that if the Contract for the Project is awarded to the Company it will be necessary for the Members to each indemnify the surety or sureties on performance and payment bonds required by the Client. Each of the Members agrees to execute any and all indemnity agreements as may be necessary to procure the execution by such sureties of such bonds. Each of the Members agrees to indemnify and hold harmless the other Members from any liability on any such bond indemnity in excess of such Member's pro-rata share of any such liability agreed to in writing by the Members prior to bidding on the Project.

Article 7
Default, Termination and Dissolution

7.1 **Default**

7.1.1 Events of Default: A Member shall be in default ("Defaulting Member") when:

.1 it has committed a material breach of this Agreement that is not corrected within fourteen (14) days after receipt of written notice of such breach from the non-defaulting Members or either one of them;

.2 there exists an uncured failure of a Member to follow the direction of the Project Manager with respect to completion of a Member's scope of work under a task order;

.3 the actual (or notice of the proposed) suspension or debarment by the Client of any Member that, if not cured, would preclude performance by the other Members to perform the Project;

.4 the insolvency of a Member;

.5 the filing by or against any Member for a petition in bankruptcy or insolvency, or for the reorganization, or for the appointment of a receiver or trustee, or the making of an assignment for the benefit of creditors;

.6 there exists an uncured failure of a Member to make a capital contribution when due; or

.7 a Disposition by one Member without the unanimous consent of the other Members.

7.1.2 Effect of Default. Following an event of default:

.1 The other Member referred to as the "Surviving Member" shall be entitled to take possession of the Defaulting Member's plant, equipment, subcontractors, employees, drawings, and designs as well as materials on site and materials in progress to allow the Company to complete the balance of the project at the time of the default.

.2 The "Surviving Member" shall, upon notice or discovery thereof, do whatever is necessary to continue performing the Contract, and the Defaulting Member, or its administrators, trustees or representatives, shall make every effort to aid the Surviving Member in continuing performance of the Contract.

.3 The Defaulting Member shall grant the Surviving Member a paid up license in any of the Defaulting Member's intellectual property necessary for the timely and efficient performance of the Contract, but for no other purpose.

.4 The Defaulting Member shall assign, in the sole discretion of the Surviving Member, any subcontracts, purchase orders, or labor agreements relating to the performance of the Contract to the Surviving Member.

.5 The Defaulting Member shall be liable to and shall indemnify, defend and hold harmless the Company and the Surviving Member from all loss, cost, liability and damages that the Company or the other Member shall incur as a result of such default.

.6 The Defaulting Member shall be entitled to the unpaid balance of compensation otherwise due the Defaulting Member to the extent that it exceeds the cost of completing the work of such Member, the expenses incurred as a result of the default, and all other obligations of the defaulting Member hereunder; the Defaulting Member shall be obligated to pay to the Surviving Member such costs and obligations that exceed the unpaid balance of compensation.

.7 The Defaulting Member shall remain subject to the exclusivity provisions of Section 4.5.

.8 The Surviving Member shall be free to carry on the business of the Company.

.9 The Defaulting Member shall not be entitled to serve or vote on the Management Committee.

7.2 **Right to Terminate.** Except as specifically provided in this Agreement, no Member shall have the right to terminate this Agreement.

Article 8
Responsibilities Regarding the Project

8.1 **Negotiation of the Contract.** The Members shall be jointly responsible for the preparation of the material terms of the Company's response to the IFB and negotiation of the Contract.

8.2 **Lower Tier Subcontracts.** Each Member shall be responsible for subcontracting and material procurement within its scope of work, unless otherwise agreed to in writing or as contemplated by the final estimate approved by the Members.

8.3 **Performance of the Project.** Each Member agrees to ensure performance of the Project and to complete performance despite the withdrawal, liquidation, or any other incapacity of any other Members. The responsibilities of the Members with regard to the performance of the Project shall be as provided in this Agreement, including its **Attachment 1.**

Article 9
Binding Authority

9.1 **Project Specific Authority.** The Members agree that for purposes of the Project only, Ho S. Eun or Conchita D. Bathan are authorized to execute and deliver to the Client on behalf of the Company all bids, proposals, agreements, contracts, modifications, amendments, bonds, applications, certifications, representations, permits, acknowledgments, and any and all other documents of whatever kind and nature relating to the Project and required under or pursuant to the IFB, and any bid guarantee being submitted therefor. In addition, the Members agree that Ho S. Eun or Conchita D. Bathan (for CTI) or Tom Valentine, Gerry Majkut or Gary M. Yokoyama (for HDCC) are individually authorized to sign teaming agreements between the Company and the Company's proposed subcontractors for the Project.

9.2 **General Authority; Authorized Representatives.** No Member, agent, or employee of the Company shall have any power or authority to bind the Company in any way or to pledge its credit or to render it pecuniarily liable for any purpose, unless authorized to do so by this Agreement or by the Management Committee. Except as provided in Section 9.1 or as otherwise determined by the Management Committee, all contracts, agreements, and other instruments shall be signed by both CTI and HDCC through their respective authorized representatives. The initial authorized representatives for each Member are as follows:

For CTI:	Ho S. Eun Conchita D. Bathan
For HDCC:	Tom Valentine Gerry Majkut

Each Member may designate additional authorized representatives, or replace its initial authorized representatives, by giving written notice thereof to the other Member.

Article 10
Miscellaneous

10.1 **Amendments.** Amendments and modifications to this Agreement may be made only in writing with the prior written approval of all Members.

10.2 **Representation of Shares of Other Entities Held by the Company.** The Management Committee, or any other Person authorized by the Management Committee, is authorized to vote or represent on behalf of the Company any and all shares of any corporation, partnership, trust, or other Entity, foreign or domestic, standing in the name of the Company. The authority granted may be exercised in person or by a proxy duly executed by such designated Person.

10.3 **Governing Law and Venue.** This Agreement shall be governed by and construed in accordance with federal contract law to the extent applicable; otherwise, the laws of the Territory of Guam shall apply. The parties consent to the exclusive jurisdiction of the U.S. District Court of Guam.

10.4 **Further Action.** Each Member agrees to perform all further acts and execute, acknowledge, and deliver any documents which may be reasonably necessary, appropriate, or desirable to carry out the provisions of this Agreement.

10.5 **Entire Agreement.** The terms and conditions contained in this Agreement (including attachments) constitute the entire agreement between the Members concerning the subject matter hereof, and shall supersede all previous communications, either oral or written, between the Members hereto, and no agreement or understanding varying or extending this Agreement shall be binding upon a Member unless in writing, signed by a duly authorized officer or representative of each Member, and adopted as provided in this Agreement.

10.6 **Confidentiality.** Each Member agrees to enforce non-disclosure agreements with teaming subcontractors who may participate in bid and proposal activities, strategy meetings, reviews, or other project meetings. The Members shall, during and after the term of this Agreement, keep in strict confidence and consider as proprietary, all information of a

commercial nature, including business and financial information of each Member and agreements, including this Agreement, and arrangements between the Members, and all information of a technical nature, including patents, know-how, designs, copyrights, licenses or sub-licenses, trademarks and trade secrets, provided or disclosed to any Member, except such commercial or technical information which is in or becomes part of the public domain or which a Member already had in its possession and not subject to non-disclosure obligations or which a Member is required to disclose by law, judicial process or governmental agency.

10.7 **Government Compliance.** Each of the Members represents and warrants that it and its affiliates that may become involved in the Project satisfy all relevant government financial compliance requirements, including the development, preparation and maintenance of government pricing and costing rates, as necessary and as required under applicable law. In the event the Company is awarded the Contract, the Members shall cause the Company and any affiliates involved with the Contract, and all appropriate subcontractors, to satisfy all governmental compliance requirements. Any costs incurred by a Member to satisfy such requirements shall be borne by that Member (or its Affiliate, as applicable) and the Member shall not seek reimbursement from the other Member or the Company for any such costs. The Management Committee shall ensure that all lower-tier subcontracts meet United States Contractor Purchasing System Review standards.

10.8 **Recruitment of Employees.** The Members agree that no Member shall solicit or employ the personnel of the other Members assigned to support the Project from the effective date of this Agreement until one (1) year after its termination. This provision shall not restrict the right of any Member to solicit generally in the media for required personnel, nor does it restrict the hiring of any employee of a Member who (i) who responds to any public advertisement placed by a hiring Member; or (ii) has been terminated by an employing Member prior to commencement of employment discussions between a Member and such employee. Violations of this Section shall be specifically enforceable only and shall not be deemed a material breach of this Agreement.

10.9 **Notices.** All notices, certificates, acknowledgments and other reports ("Notices") sent by a Member shall be in writing and deemed properly delivered when duly mailed by certified mail to the other Members at their addresses as follows, or to such other address as the Members may designate by written notice to the others. Additionally, Notices sent by any other means (e.g., email, facsimile, overnight delivery, or courier) are acceptable subject to written confirmation of both the transmission and receipt of the Notice.

To CTI:

Core Tech International Corporation:
Attn: Ho S. Eun, Chairman
388 S. Marine Corps Drive
Suite 400
Tamuning, Guam 96913

Ph: 671-473-5000 (Office), 671-486-5000 (Cell)

To HDCC:

HDCC Guam, LLC
Attn: Mr. Tom Valentine
201 Merchant Street, 9th Floor
Honolulu, Hawaii 96813

Telephone: (808) 735-3244 (Office) / (808) 224-8235 (mobile)

With copy to:

Gary M. Yokoyama, General Counsel
Hawaiian Dredging Construction Company, Inc.
201 Merchant Street, 11th Floor
Honolulu, Hawaii 96813

Email: gyokoyama@hdcc.com
Telephone: (808) 735-3323 (Office)

A Member may change the individuals identified above by notice to the other Members without formal amendment of this Agreement.

10.10 **Computation of Time**. Unless otherwise indicated, all references in this Agreement to "days" shall mean calendar days.

10.11 **Counterpart Signatures.** This Agreement may be executed in counterparts, each of which shall be deemed an original, and said counterparts shall together constitute one and the same agreement, binding on all of the parties hereto, notwithstanding all of the parties are not signatory to the original or same counterparts.

IN WITNESS WHEREOF, the Members have caused this Agreement to be executed by their duly authorized representatives as of the day and year first set forth above.

CORE TECH INTERNATIONAL CORPORATION

By: _____
Ho S. Eun, President

("CTI")

HDCC GUAM, LLC
By Hawaiian Dredging Construction Company, Inc., Its Member

By: _____
J. Majkut, President

("HDCC")

Attachment 1
Scope of Services/Percentage Interests

As of the date of formation of the Company, the Client has not issued 100% plans and specifications for the Project. Consequently, CTI and HDCC acknowledge and agree that they are presently unable to determine responsibility for the scopes of work to be performed by each of them, or to finally allocate the Percentage Interests in the Company. Therefore, the scopes of work and Percentage Interest set forth below are preliminary and are subject to change pending the Client's issuance of 100% plans and specifications. Once such plans and specifications have been prepared and reviewed by CTI and HDCC, they shall jointly determine whether the scopes of work and Percentage Interest should be adjusted.

A. Scopes of Work:

CTI shall be primarily responsible for procuring all labor, material, equipment and facilities necessary to complete the Project, except for the following scopes of work which shall be the responsibility of HDCC:

a. overall project management
b. procurement of processing equipment
c. installation of processing equipment
d. start-up and testing of processing equipment

B. MEMBER'S PERCENTAGE INTEREST IN THE COMPANY:
Unless otherwise agreed by CTI and HDCC, the following percentages shall be each Member's interest in the Company:

HDCC Guam, LLC:		30%
Core Tech International Corporation		70%
	Total:	100%

C. INITIAL CAPITAL CONTRIBUTION

HDCC Guam, LLC:		$30,000
Core Tech International Corporation		$70,000
	Total:	$100,000

COMPANY RESOLUTION

For New Project

GWA Project No. IFB-03-ENG-2018

OEA Grant OCON676-16-01

This Resolution is dated: March 13, 2018.

Members of Core Tech-Hawaiian Dredging, LLC are:

Core Tech International Corporation: "Core Tech"

HDCC Guam, LLC: "HDCC"

Whereas, Core Tech-Hawaiian Dredging, LLC, ("Company") has received information concerning a new **"Project"** described as follows:

Invitation to Bid: IFB-03-ENG-2018
For the GWA Interceptor Sewer Refurbishment Project, Northern District

Whereas, the Members of the Company desire to bid for the **Project**;

Whereas, this Resolution is made pursuant to the "Third Amendment to Operating Agreement", dated April 28, 2017, which allows for future projects to be memorialized without requiring a formal amendment of the Operating Agreement;

Now Therefore, all the Members of Core Tech-Hawaiian Dredging, LLC, ("Company"), hereby unanimously adopt and approve the following ***Resolutions*** for a new **Project**, known as "GWA Project No. IFB-03-ENG-2018":

Resolved – the Project. That the Company shall bid on the Project known as the "GWA Project No. IFB-03-ENG-2018"

Resolved – Share of Responsibilities. The work, responsibilities and liabilities for this project shall be split or basically shared as near as possible to 50/50.

Resolved – Member's Ownership Profit & Loss Temporary 50-50 split. The Company's Management Committee has agreed to make a temporary change in the percentage splits in the profit and loss for this project. The Company's by-laws sets the percentage split on the ownership and sharing of profit and loss as: Core Tech – 70%; and HDCC – 30% (hereafter referred to as the "Basic Split"). The Basic Split shall not apply to this project only, instead, the percentage split for this project shall be 50-50 for the profit and loss. The Company shall make all accounting and record adjustments necessary to accommodate this temporary split.

Resolved – Record Keeping and Compensation. That if and upon the Company being awarded the contract for the Project, the Parties agreed to accumulate, track, and report to the other Party, its direct labor, materials, and other project costs. In addition, each Party agreed that the labor, stockyard, plant and equipment rates to be charged to the Project shall be at the rates agreed upon in writing by the Parties and is attached to this Resolution as Exhibit 1.

As specified in Exhibit 1, the Parties agreed to recover the Home Office Overhead Cost (HOOHC) at a budgeted amount, which will be included in the bid price for this Project. This amount will cover each Parties HOOHC including but not limited to home office management, facilities, depreciation of company assets, vehicles, travel for home office staff, salaries of home office staff, legal and accounting. This amount will be split by the Parties based on agreed profit and loss percentage split for this Project. The Parties agreed to bill the Company for HOOHC based on the percentage of completion billed by the Company for the Project.

Each Party agreed to bill the Company for the actual hours incurred by the Field salaried staff for the Project at actual pay rates multiplied by a fixed multiplier or fringe rate of 55.52% for Core Tech and 45% for HDCC. Craft labor provided by Core Tech shall be billed to the Company at an agreed rate as shown on exhibit 1. HCCC will bill the project at the actual payrates plus a fringe rate of 74.85% plus travel and subsistence costs as defined in the appropriate trade union agreement. The fringe rate covers all fringe related expenses including but not limited to workers comp, retirement benefits, bonuses, all vehicle costs, computer health insurance. HDCC assigned Project Manager vehicle costs, travel and housing costs shall be a direct cost to the project and shall be billed to the company at cost without any mark up. All labor charges to the Project must be supported by timesheets showing hours worked on the Project, signed by the employees and approved by their supervisors / managers and can be traced back to actual payment to the employee. Either Party has the right to audit the other Party's books and records to validate the charges to the Contract.

Each Party agreed to get reimbursed for the actual cost paid on behalf of the Company with no mark up.

Each Party agreed that the rental rates for equipment owned by Core Tech, if used by the Company for the Project shall be at an agreed upon rate as shown on Exhibit 2.

Warehouse space shall be charged at a monthly agreed rate of .90/SF , stockyard at $.45/SF.

Resolved - Company's Management Committee. The approval of the Company's Management Committee is required form many things as stated in this Agreement. Since the Management Committee is made up of a representative of each party, then, for practical purposes, whenever the work, actions, costs, etc. of a Party would normally require the approval of the Company's Management Committee, then the written approval by the other Party shall be sufficient for the requesting Party to proceed.

IN WITNESS WHEREOF, the Members have executed this Resolution by their duly authorized representatives as of March 13 2018.

MEMBER:

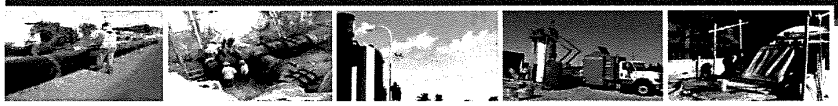
CORE TECH INTERNATIONAL CORPORATION

By: _____
Ho Sang Eun, its Chairman

MEMBER:

HDCC GUAM, LLC
By Hawaiian Dredging Company, Inc.,

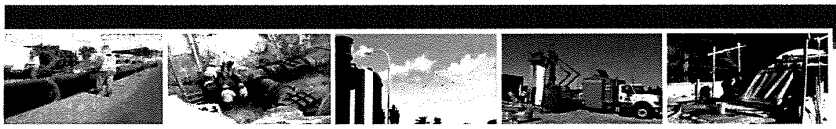
By: _____
J. Majkut, its President



Core Tech - Hawaiian Dredging, LLC

List of Proposed
Subcontractors and Suppliers

Use or disclosure of data contained on this sheet is subject to the restriction on the cover page of this proposal.



Core Tech - Hawaiian Dredging, LLC

List of Proposed Subcontractors and Suppliers

Michels Corporation

817 W. Main Street
P.O. Box 128
Brownsville, WI 53006

Scope of Work

- Television Inspection of Sewers
- Water Cured-in-Place Pipe or Ultraviolet (UV) Cured-in-Place Pipe (CIPP)
- Manhole Rehabilitation

Duenas, Camacho & Associates, Inc.

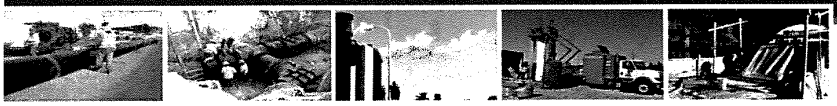
238 East Marine Corps Drive
Suite 201
Hagatna, GU 96910
(671) 477-7991

Scope of Work

- Designer
- Land Surveying

Note: Bypass pumping will be self-performed by Core Tech-Hawaiian Dredging, LLC (bidder).

Use or disclosure of data contained on this sheet is subject to the restriction on the cover page of this proposal.



Core Tech - Hawaiian Dredging, LLC

Acknowledgement of Addenda

Use or disclosure of data contained on this sheet is subject to the restriction on the cover page of this proposal.



Acknowledgement of Receipt of Addenda

Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.	Addendum Date
1	February 8, 2018
2	February 23, 2018
3	March 2, 2018
4	March 6, 2018
5	April 4, 2018
6	April 10, 2018
7	April 18, 2018

Use or disclosure of data contained on this sheet is subject to the restriction on the cover page of this proposal.

GUAM WATERWORKS AUTHORITY
"Better Water, Better Lives."
Gloria B. Nelson Public Service Building| 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Issues for Decision

Resolution No. 33-FY2018
Relative to Approval of Funding Match Commitment for Bureau of Reclamation Grant as it Relates to GWA District Metering Project Grant Application

What is the project's objective and is it necessary and urgent?
GWA management seeks CCU approval of the project intent as well as CCU commitment to the legal and financial obligations associated with the 50% matching requirement per Department of Interior, Bureau of Reclamation, Water-Smart Program.

The project intends to install distribution main meters at fourteen locations including vault boxes and related piping. Included in the scope will be all related equipment & infrastructure for power and communication which will allow the meters to have AMI capabilities. With the AMI infrastructure in-place at those locations, given ideal conditions customers meters may also be brought into the AMI infrastructure, although this is not directly related to the project. Data from the distribution main meters and customer meters can be examined in real-time; any sharp deviation from normal water supply levels would indicate a possible distribution main break. This will allow GWA to dispatch leak detection crews to identify possible line breaks in a relatively narrower area, thereby reducing response time. This project is urgent given that GWA water loss rate is relatively high.

Where is the location?
Distribution main meters will be located at key supply entry points in the following location: Hagatna; Asan; Agat-Santa Rita; Anao Point; Yigo; Baza Gardens, Yona; East Gayinero, Yigo; Ipan, Talofofo; Bear Rock, Inarajan; Nimitz Hill, Piti; Pago Bay, OCP; Paradise Estates, Dededo; Piti; TaloVerde, Tamuning; Talofofo.

How much will it cost?
Estimated overall total project cost is $2,000,000.00

When will it be completed?
Estimated project completion will be 36 months from the time funding/NEPA is secured.

What is the funding source?
The grant proposal is to the Bureau of Reclamation, that includes a 50-50 match requirement. If successful, Bureau of Reclamation will be providing fifty-percent (50%) of total project costs estimated at $1M.

The RFP/BID responses (if applicable):
Not Applicable

CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 33-FY2017

RELATIVE TO APPROVAL OF FUNDING MATCH COMMITMENT FOR BUREAU OF RECLAMATION GRANT AS IT RELATES TO GWA DISTRICT METERING PROJECT GRANT APPLICATION

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities ("CCU") has plenary authority over financial, contractual, and policy matters relative to the Guam Waterworks Authority ("GWA"); and

WHEREAS, the Guam Waterworks Authority ("GWA") is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA is submitting a distribution main metering grant proposal (See EXHIBIT A) to the Department of Interior, Bureau of Reclamation, Water-Smart Program, wherein the project intends to install district meters at 14 closed water subset-systems at various locations to allow the Agency to record and analyze quantity supply and quantity consumed; spikes in supply without a corresponding spike in consumption may indicate a water line break for that specific closed system being metered, thus narrowing the area for leak detection, thereby reducing water loss and O&M costs; and

WHEREAS, some critical aspects of the project are installation of related equipment & infrastructure for power and communication which will allow the district meters to have AMI capabilities; and

WHEREAS, the GWA Engineering acknowledges that the intended purpose of the proposed project is to reduce real water loses and increase water savings; and

WHEREAS, the estimated total grant proposal project cost is Two Million Dollars ($2,000,000.00) which includes design and construction with a fifty percent (50%) matching requirement of One Million Dollars ($1,000,000.00) from GWA of total eligible project costs; and

WHEREAS, all grantee's submitting proposals to the Department of Interior, Bureau of Reclamation, Water-Smart Program are required to include as part of the grant application financial and legal commitment from its board of directors; due within thirty (30) days of grant submittal; and

WHEREAS, the General Manager & Chief Engineer advocates the implementation of the proposed grant project and intends to set aside One Million Dollars ($1,000,000.00) in matching requirement to be provided from bond proceeds applicable to the project such as PW 05-06 Master Meters, PW 12-01 Water Audit Program & Water Loss Control Plan; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that this project's intent will assist in water loss reduction by making line break detection more efficient and tracking of quantity of supply data more reliable in those subset water system metered sectors and recognizes water and costs savings.
3. The CCU hereby supports the management of GWA to enter into a grant or cooperative agreement with the Department of Interior, Bureau of Reclamation, for the purposes of the WaterSmart grant program.
4. The CCU hereby further authorizes the management of GWA to commit to the legal and financial obligations associated with the fifty percent (50%) matching requirement per Department of Interior, Bureau of Reclamation, Water-Smart Program in the amount of One Million Dollars ($1,000,000.00).

//

//

RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

DULY AND REGULARLY ADOPTED, this 22nd day of May, 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS **J. GEORGE BAMBA**
Chairperson Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

///

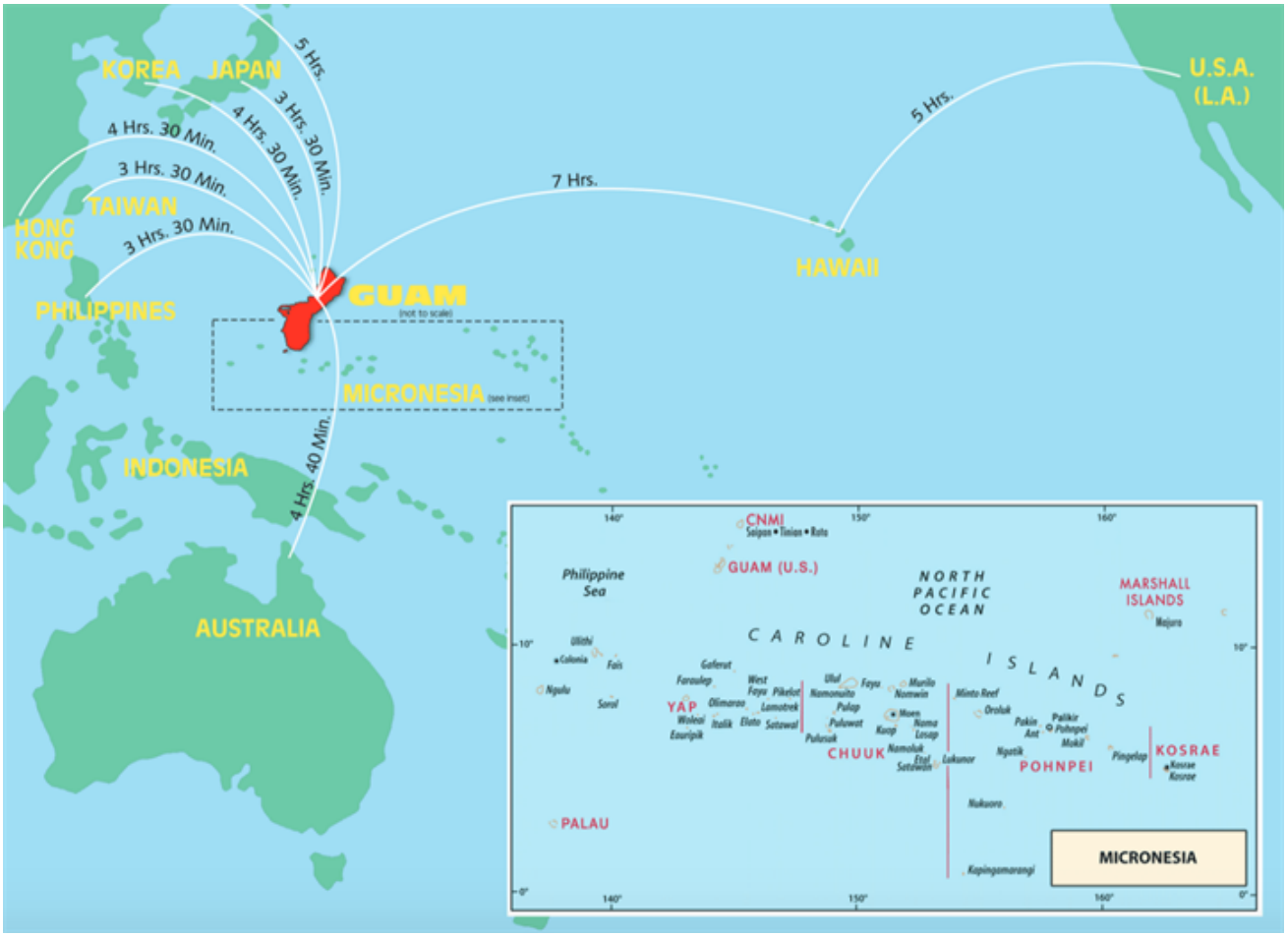
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EXHIBIT A

GUAM WATERWORKS AUTHORITY

"Better Water. Better Lives."
Gloria B. Nelson Public Service Building| 688 Route 15 | Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846/48 Fax No. (671) 648-3290



Guam Waterworks Authority

Distribution Main Metering Project

Grant Proposal

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Appendices

Appendix A - Guam Waterworks Authority FY 2017 Financial Highlights Report (Apr. 24, 2018)

Appendix B – Letter of Endorsement – Madeleine Z. Bordallo, Congresswoman, U.S. House of Representatives (May 9, 2018)

Appendix C – Resolution – Consolidated Commission on Utilities (Forthcoming)

Appendix D – Memorandum of Understanding - GWA – GPA MOU relative to Smart Grid Network Usage (Jul. 9, 2015)

Project Summary

The Guam Waterworks Authority (GWA) is submitting this application on May 10, 2018 Guam Pacific time to be considered for the Department of Interior (DOI), Bureau of Reclamation(BOR) 2018 WaterSmart Program, catalog of federal domestic assistance (CFDA) number 15.507, funding opportunity number BOR-DO-18-F006. Total project cost is estimated at $2,000,000 and is expected to take 3 years from the time funding is approved. The GWA will contribute 50% of the total project costs estimated at $1,000,000 and will be paid out of its existing revenue bonds. The requirement of the governing board resolution funding commitment will be forthcoming within 30 days of our submittal, a meeting is scheduled later this month.

The proposed BOR project is one component of GWA's Water Loss Program, it aims to install distribution main meters within fourteen key locations within the water system. Included in the project will be the architecture and engineering design analysis of each of the fourteen sites, design & construction of concrete meter vault boxes, design & construction of power and communication infrastructure (to allow remote reading). The proposed BOR project will compliment other on-going and in-progress GWA projects that are part of the Water Loss Program. These projects are:

- Production Metering Project (60 identified deep well sites),
- Water Hydraulic Modeling Refinement Project,
- Replacement of Customer Meters Project (21,000 balance of 44,000),
- Pressure Zone Realignment and District Metering,
- Line Replacement Program Project (3rd year),
- Leak Detection & Response Unit Creation & Implementation.

The GWA's water loss rate/non-revenue water is pegged somewhere between 50-58% based solely on sales and production. Note this is still up for discussion due to questions surrounding the validity of production well data. The GWA pumps approximately 38 million gallons of water per day through its deep wells. Because the proposed project aims to install remote reading distribution meters, GWA will be alerted to specific narrowed areas of potential water distribution main breaks, therefore improving response time, thus saving vast sums of water. Note that it is the intent of this proposal to identify water savings, it also acknowledges that production meters at the deep wells have flaws which the on-going deep well project aims to correct or validate. Although GWA has a number projects currently on-going to support water loss, the proposed BOR project will immediately aid in controlling water loss by alerting GWA to specific narrowed areas where distribution main meters are located by providing metering data in real-time, thereby improving response time in leak detection and repair. An ancillary benefit of the project will be the opportunity to allow customer meters in those areas to be read remotely. Currently, the GWA reads its customer meters via Automatic Meter Read (AMR); although, they are also equipped for Advanced Metering Infrastructure (AMI). If initial cursory review assumptions are correct, the transition to AMI will have minimal costs.

The GWA, Engineering Department & Grants Planning Section, have no knowledge of any previous grant funding from the Department of Interior, Bureau of Reclamation to this date and believes this is the GWA's first application to DOI, BOR. The GWA has earned the designation of "low risk auditee" status from the independent auditor Deloitte and Touche, LLP in FY 2016 & FY 2017. Congressional endorsement has been obtained and can be found in Appendix B.

Background_ About Guam Waterworks Authority

The island of Guam is located in the western Pacific Ocean approximately 3,800 miles west-southwest of Honolulu, Hawaii, 1,550 miles south-southeast of Tokyo, Japan and 1,600 miles east of Manila, Philippines. The island, which is the western most Territory of the United States, is approximately 30 miles long and ranges from 4 to 9 miles wide with a total land area of approximately 212 square miles. The Guam Waterworks Authority (GWA) system provides water to all of the civilian population of Guam and sewer service to a large percentage of the civilian population, Andersen Air Force Base and several Navy facilities.

The GWA has over 42,000 water service connections and approximately 26,000 wastewater service connections to a civilian population of approximately 180,000 on the island including tourists and military. The GWA manages three drinking water systems across the island, producing approximately 42 million gallons per day (MGD) of drinking water from about 120 deep wells, military purchases and a surface water treatment plant. Of the 42 MGD, GWA purchases water from the U.S. Navy 4 MGD. The system includes 23 in-service storage water tanks/reservoirs, over 100 chlorination stations, 25 water booster pump stations, and over 500 miles of island-wide water distribution lines. On the wastewater side, GWA owns and operates seven wastewater treatment plants that can treat an average total flow rate of about 14 MGD of sewage, 78 wastewater pump stations and ejectors, and approximately 300 miles of sewer collection lines and conveyance lines. Additionally, there are currently two major military installations, Andersen Air Force Base and Naval Base Guam, which occupy large areas on the island. Andersen AFB has its own water system and wastewater collection system; however, it does not have a separate wastewater treatment plant; it discharges its wastewater into GWA's Northern District wastewater system.

The Guam Organic Act of 1950 is the United States federal law that designated the island of Guam as an unincorporated territory of the United States. Among other things, it created the Government of Guam and conveyed all water rights to it. The GWA operates as an Autonomous Agency of the Government of Guam, more specifically a "state-operated" Government Public Corporation. The GWA is governed by the Consolidated Commission on Utilities (CCU), a five-member non-partisan board, with members elected individually in a general election to a four-year term. The CCU is also charged with oversight of the Guam Power Authority (electrical power). The CCU makes decisions regarding policy, management, budget and finance of the Authority's operations.

Upon taking office in January 2003, the original members of the CCU were faced with more than $25 million in debt and pending federal lawsuits for violations of water quality and environmental standards that had accumulated over the previous several decades. Since 2003, a number of changes have been made to move the Authority operations towards a self-supporting economic model and environmental compliance. Currently, both the CCU and the GWA management and staff are focused on meeting the requirements of a 2011 Court Order resulting from the federal lawsuits, by refurbishing and/or upgrading facilities to improve reliability, to implement operational systems and procedures consistent with current utility practices, and to meet regulatory standards, i.e. Safe Drinking Water Act/Clean Water Act, American Water Works Association (AWWA) standards. The Authority has made great strides in improving fiscal management, and in obtaining external funding through the bond markets to fund its

Capital Improvement Program (CIP), including projects identified in the court order. To date it has borrowed and implemented approximately $500 million in infrastructure improvements mainly in water tanks, configuration of transmission lines, and wastewater treatment plants. An important accomplishment by GWA is its recent investment grade credit designations by Moody's, Standard & Poor's, and Fitch rating agencies, and also obtaining a low risk designation by auditors related to federal grants for years 2016 and 2017.

The Water System

The GWA's water supply system primarily consists of 120 wells, the Ugum Water Treatment Plant, the Tumon-Maui well(leased military deep well), 25 water booster pump stations, 23 in-service tanks/reservoirs which contain an active maximum volume of about 30 million gallons, approximately 586 miles of water distribution pipelines, and roughly 3,814 fire hydrants.

Guam's primary water source is from groundwater, with additional supplies drawn from a single surface water source and two springs, all of which are replenished by rainfall throughout the year on Guam. The largest amounts of rain for the island come during the months of June through December. The annual rainfall can average 80 inches in central to northern areas, and in the southern areas as much as 110 inches. Guam's geologic features divide the island into distinct northern and southern areas. The northern part of the island is primarily flat, limestone plateau, where the island's groundwater occurs, while the southern part of the island has a more mountainous, volcanic geology and contains the majority of rivers and surface water. The north's limestone plateau, with steep cliffs, slopes gently southwesterly from an elevation of 600 feet to less than 100 feet above mean sea level at the middle of the island. The main groundwater source is located under the plateau. Guam's rainfall percolates through the limestone and forms a freshwater "lens" that floats at sea level above dense brackish and salt water. Studies have shown that Guam's aquifer can provide a water supply of up to 80 million gallons per day.

The Wastewater System

GWA's wastewater system serves primarily all of the civilian population of Guam, as well as for Andersen Air Force Base and some U.S. Naval facilities in the northern end of the island. However, there is a significant portion of the civilian population in the north that is not served by GWA's wastewater system. The system includes wastewater treatment plants, sewage pump stations and extensive collection systems in each of its 7 districts. GWA's wastewater collection system consist of an estimated 314 miles of gravity sewers and force mains that collect sewage from the various communities served and transport it to the respective wastewater treatment plant in that district.

The Institutional Capacity Building & Project Introduction/Background

The Guam Waterworks Authority has recently undergone several key upgrades towards operating its systems. Significant efforts have been expended towards decreasing expenditures, improving leak repair times, implementing a meter replacement program, and launching a computer maintenance management system as part of a comprehensive asset management program and committing vast time and resources to develop and continuously improve its Water and Wastewater Hydraulic Models and developing a GIS. GWA continues to work diligently in

making needed improvements to both the water and wastewater systems, including upgrades required in the 2011 Court Order, projects to accommodate growth in the island's population centers, as well as normal renewals, and replacements. As part of our efforts to achieve operational improvements and readiness, GWA is implementing asset management principles and improved maintenance management practices within the four Operations divisions responsible for operating and maintaining the island's water and wastewater infrastructure.

Currently GWA has contracted with a national engineering firm to update its Water Resources Master Plan (WRMP) and is currently undergoing the comment period with the public and all interested stakeholders for the draft report. Note that the existing firm has also been responsible for completing the 2006 WRMP report. A copy of the draft WRMP report and/or 2006 WRMP report can be made available to anyone interested in receiving a digital copy. The 2018 draft WRMP report objectives were to summarize the condition of GWA's water and wastewater system facilities and outline improvements needed over the subsequent 20 years to achieve regulatory compliance and improve the reliability of GWA's infrastructure and services. Specifically, the draft WRMP currently in the public comment period assesses GWA's progress towards achieving the recommendations outlined in the 2006 WRMP and further develops a capital improvement plan for the next 20 years, through 2037, to meet acceptable levels of service and maintain compliance with drinking water standards and clean water regulations.

Both the 2006 WRMP and the 2018 draft WRMP identifies key recommendations specific to projects that the utility could do to help stem GWA's arguably water loss rate/non-revenue water pegged at 50%-59%. Although this is an astounding number given that 42 million gallons are produced daily, and which it implies we are losing approximately 50 percent; GWA is cautious when using this number. Aiding in resolving this data validity issue are steps being taken now by the GWA, demonstrated by initiating projects such as the production deep well meter project, and other projects as part of the Water Loss Program listed earlier. Difficulty in understanding the system is said to be the manner it was constructed. For the most part the water system was constructed piece mill over the decades since post World War II (WWII) Guam. GWA's water system is described as a "legacy system" originally built by the U.S. Navy during the post WWII reconstruction of Guam that went well into the 1960s and 1970s. Most of that system is still in place and used and the newer/recent improvements have mostly been extensions on top of the older legacy system. GWA Management understands the importance of resolving this long-standing issue and has plans to incrementally replace the system.

It is in addressing non-revenue water which GWA is putting forth for this grant proposal through design and construction of distribution main meters, including various AMI components to allow for real time reading. The GWA views two types of distribution main meters, 1) pressure zone meter, and 2) district meters/distribution main meter which is a subset of the pressure zone meters. The project aims mainly to meter large housing tracks or clusters of commercial buildings to obtain real time consumption data; data from these meters will provide better analysis of the quantity of water losses in real-time for a controlled specific area. Data will be used to compare to the consumption for those areas. Currently, all GWA customer meters are read via AMR, although they are AMI capable. Therefore, the project has a dual benefit in that it intends to provide residential customers meters that are currently being read through AMR technology to switch to AMI technology along with the district meter for the specified area of

study. This will allow immediate analysis and notification when there are substantial irregularities in those areas making leak detection much more efficient and effective. Other benefits of the project in include better data for non-revenue water accounting, and in refining the water system hydraulic model. Information provided by the proposed project will help in removing some of the assumptions the model may have relied on due to the absence of data.

Both the 2006WRMP and the 2018 draft WRMP reports outline key tasks to perform in order to reduce water losses including apparent and real. To date GWA has performed the following as recommended in WRMP reports:

1. Revenue enhancement- Replaced thus far 20,000 customer meters; in progress to address the balance of 42,000
2. Revenue enhancement- Line Replacement program in progress
3. Continuous testing of meters- Purchased meter test bend & constructed a Meter Test Bench facility, staffed meter testing program
4. Quantifying Production - in contract to design and construct production water well meters
5. System/Pressure Zone Meters – in contract design to reconfigure zoning according to best engineering design practices
6. Leak Detection study- performed (2) contracted whole water system sweeps
    a. Currently performing tactical leak detection tasks internally
    b. Currently in process of obtaining equipment and more staffing to accommodate 2 crews

Technical Project Description

This project proposes to design and construct complete in place including installation of distribution main meters at fourteen locations throughout the island. It will include underground vaults, valving and miscellaneous piping, excavation, backfill, restoration of pavements and connection to island power and communication grid. All work related to the proposed project will be located on government easements or utilities right of way. The proposed project will install meters within the existing water system, therefore all work will occur on previously disturbed areas, rights of way or utility easements.

The Guam Power Authority (GPA), a sister company of the GWA both report to the Consolidated Commission on Utilities Board. The GPA currently has successfully constructed a fully functional AMI network used for its power customers throughout the island. There is a memorandum of understanding to allow the GWA to utilize its network for AMI purposes eliminating a portion of upfront costs associated with the AMI infrastructure. Within the MOU the GWA & the GPA agreed to share in the cost of implementation of specific AMI components such as the expansion of the data control center, and the expansion of the routers/collectors within the network to increase coverage. It is the intent of this project to utilize the GPA AMI infrastructure either fully or partially for the use of the distribution main meters. It will depend on the conditions that will be revealed during the design phase of the project. Customer's water meters in the metered tracks although not directly related to the project could potentially be able to be able to utilize the AMI network. The initial cursory review by the GWA & GPA engineering department suggests that minimal costs will be involved, as GWA's customer meters are already AMI capable. Additions

to the AMI infrastructure may include expanding the number of routers and collectors. Once more information is obtained during the design phase and it appears to be viable to bring on its customer meters with little or no additional cost, the GWA may provide funding and/or request DOI, BOR for approval to amend project scope; provided that it will be within established budget thresholds.

The project will allow GWA to determine real water losses for a specific customer track or rather isolated areas related to the water system. Fourteen housing/customer tracks have been identified as good candidates by the GWA Water Engineering Section and the GWA Water Operation sections due to having one or two water supply lines feeding it; allowing the capability to meter water supply at entry points and/or exit point. With meters at the entry/exit point leading into the customer track, the GWA will be able to validate the quantity of supply. The GWA Operations sometimes refer to this as a closed system. Data from the distribution main meters (supply) will be compared to data coming from the customer meters (demand). Data will be reviewed and analyzed by the GWA System Control Center (SCC) unit, they are a 24-hour data call center and highly skilled in water & wastewater system operations than a typical dispatcher. Any variations from normal operations from the data comparison may prompt the SCC personnel to cut a workorder for the Leak Detection Unit to investigate for possible breaks. Any leaks identified will be reported to SCC to cut a work order for repair crews to immediately address the leak.

Below are specific projects locations for each of the fourteen identified sites where the distribution main meters will be constructed. As stated earlier in the introduction of the project, GWA's rate of non-revenue water is roughly 50-59%. This number is considered rough at this point due to the inability to obtain hard data or inability to valid data at this time. All projects in the Water Loss Program including the proposed BOR Distribution Main Metering project will aid in validating information related to non-revenue/water loss rate. Water loss/ non-revenue ranges depending on the source. The 2017 single audit describes GWA water loss at 59%, the draft WRMP (Brown & Caldwell) reported it to be 49% and the GWA Water Accountability section pegged it at 38%. Therefore, for the analysis related to water saving assumed that each of the fourteen housing track locations identified for distribution main meters construction have a 59% water loss rate. Furthermore, GWA is confident that it will be able to track and reduce this rate be at least 40%. Below you will find project location in relation to Guam, customer consumption in acre feet for those locations and water savings from the reduction of 19 percentage point for each of track housing.

The 36-month project schedule is shown in Table A, and a breakdown of major tasks is shown in Table B.

Table A. Project Schedule

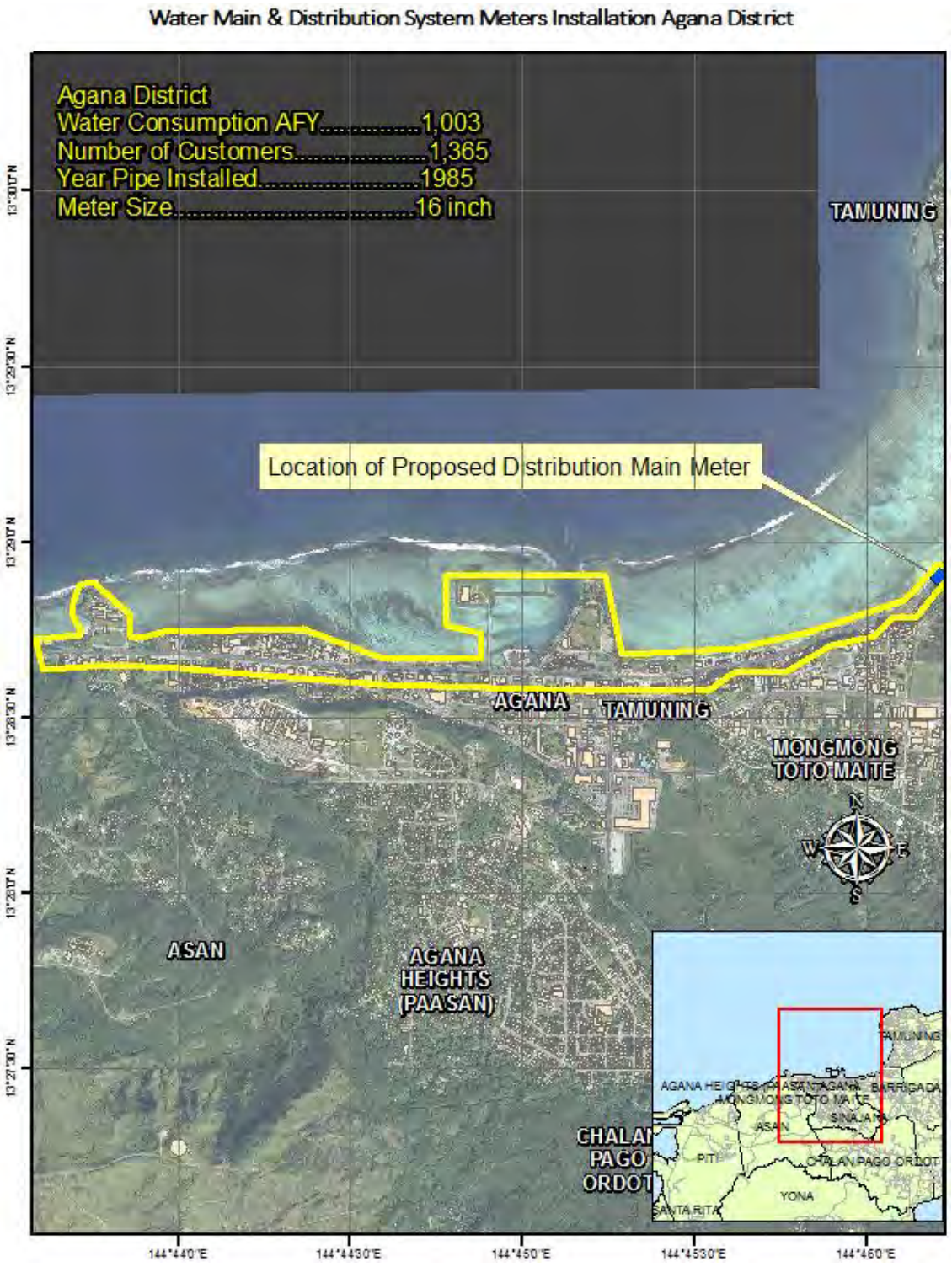
Task No.	Timeline Major Project Tasks	FY 2018 Quarters		FY 2019 Quarters				FY 2020 Quarters				FY 2021 Quarters				FY 2022 Quarters	
		3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2
1	Grant Application																
2	Project Design Procurement																
3	NEPA Compliance																
4	Project Design																
5	District Meter Installation																
6	AMI Data Center Configuration																
7	Performance Monitoring																

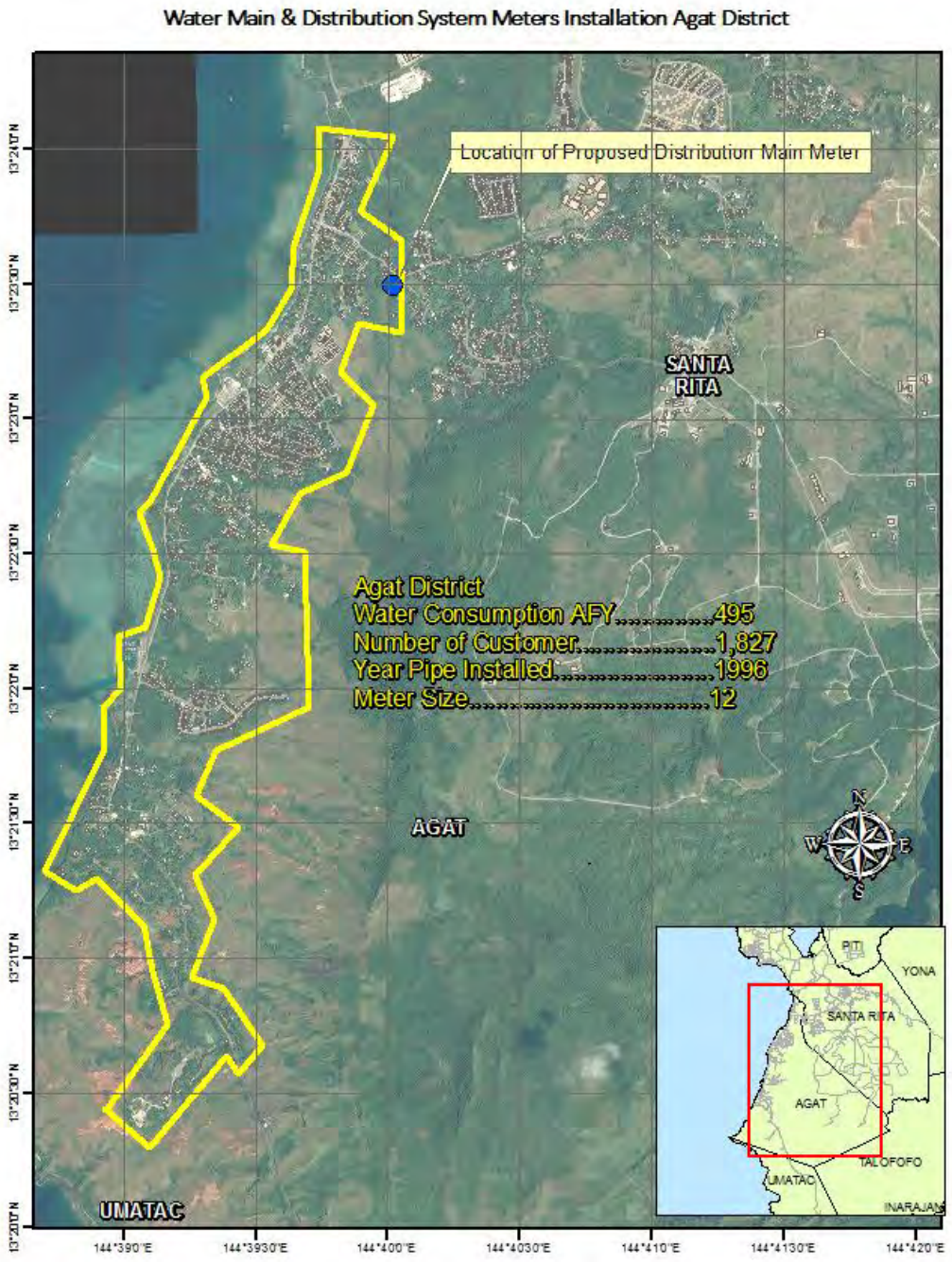
Table B. Project Task Breakdown

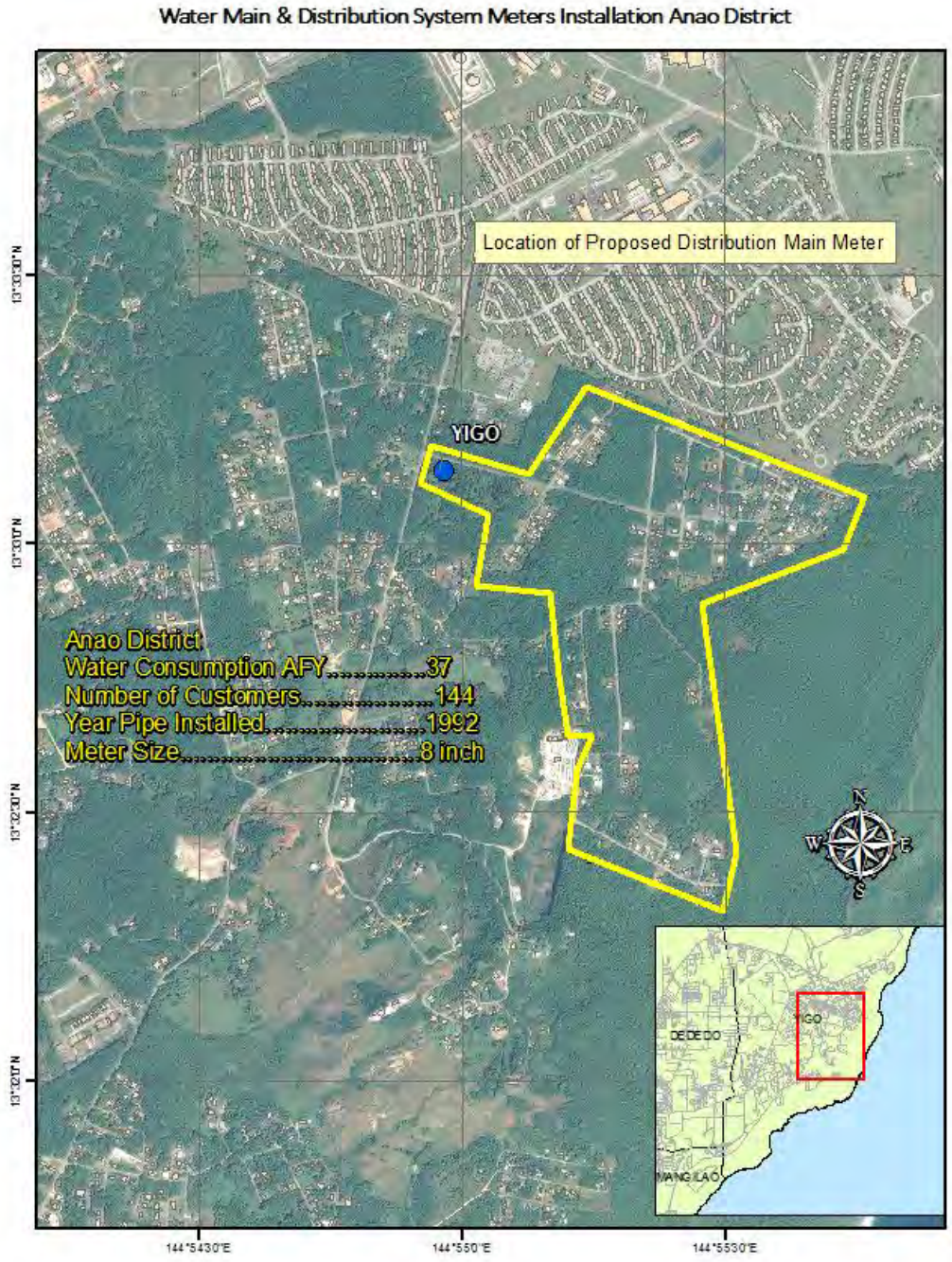
Main Task / *Subtask Description*	Date Start	Duration (Days)	Duration (Months)	Duration (Years)	Date Complete
Grant Application	**5/1/2018**	**244**	**8.1**	**0.7**	**12/31/2018**
Grant application draft and submittal					
Evaluation and selection of grant application					
Grant award and kickoff meeting					
Project Design Procurement	**1/1/2019**	**211**	**7**	**0.6**	**7/31/2019**
Document assembly for design services competitive bid					
Advertise design bid and collect packages					
Bid package opening, evaluation, short listing					
Design firm interviews					
Final evaluation and selection					
Fee negotiation					
Consolidated Commission on Utilities notification					
Contract processing					
Certification of funds					
Notice to proceed issued					
National Environmental Policy Act Compliance	**1/1/2019**	**180**	**6**	**0.5**	**6/30/2019**
Environmental consultation with local agencies					
Submit agency responses to Bureau of Reclamation					
Review of documentation					
Issuance of Categorical Exclusion					
Project Design	**8/1/2019**	**183**	**6.1**	**0.5**	**1/31/2020**
Design kickoff meeting					
Field survey of district meter sites					
Selection of meter and communication equipment					
Project plan drafting					
Design review and acceptance					
Distribution Main Meter Installation	**2/1/2020**	**699**	**23.3**	**1.9**	**12/31/2021**
Procure equipment and materials					
Acquire clearances and permits					
Meter installation and testing					
AMI Data Center Configuration	**7/1/2020**	**91**	**3**	**0.3**	**9/30/2020**
Procure data center vendor services					
Configuration and testing of existing data center to receive meter data through AMI					
Training for GWA staff					
Total Project Duration	**1/1/2019**	**1095**	**36.5**	**3.0**	**12/31/2021**

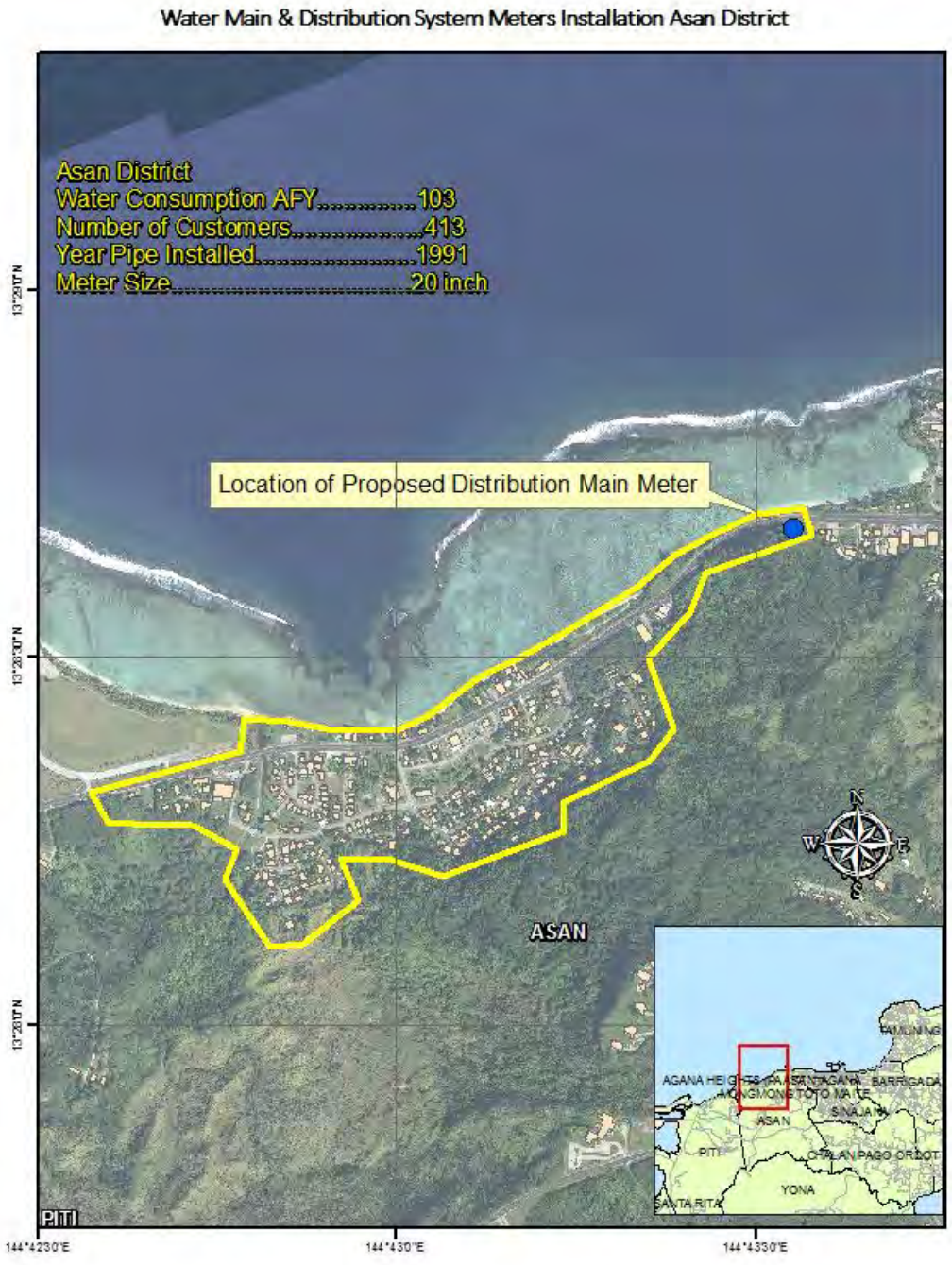
Project Location & Unique Information

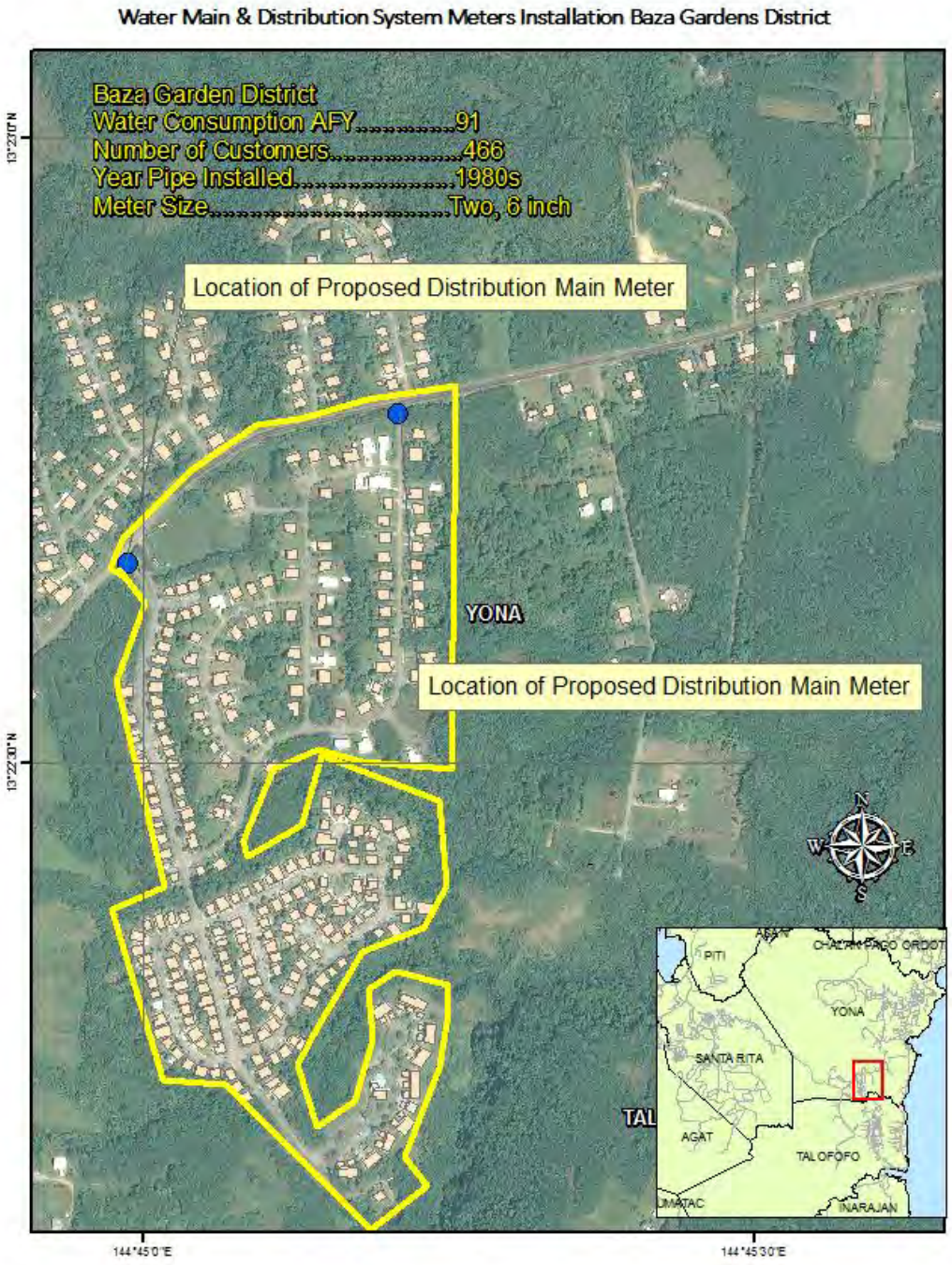
Maps are presented in the following pages.

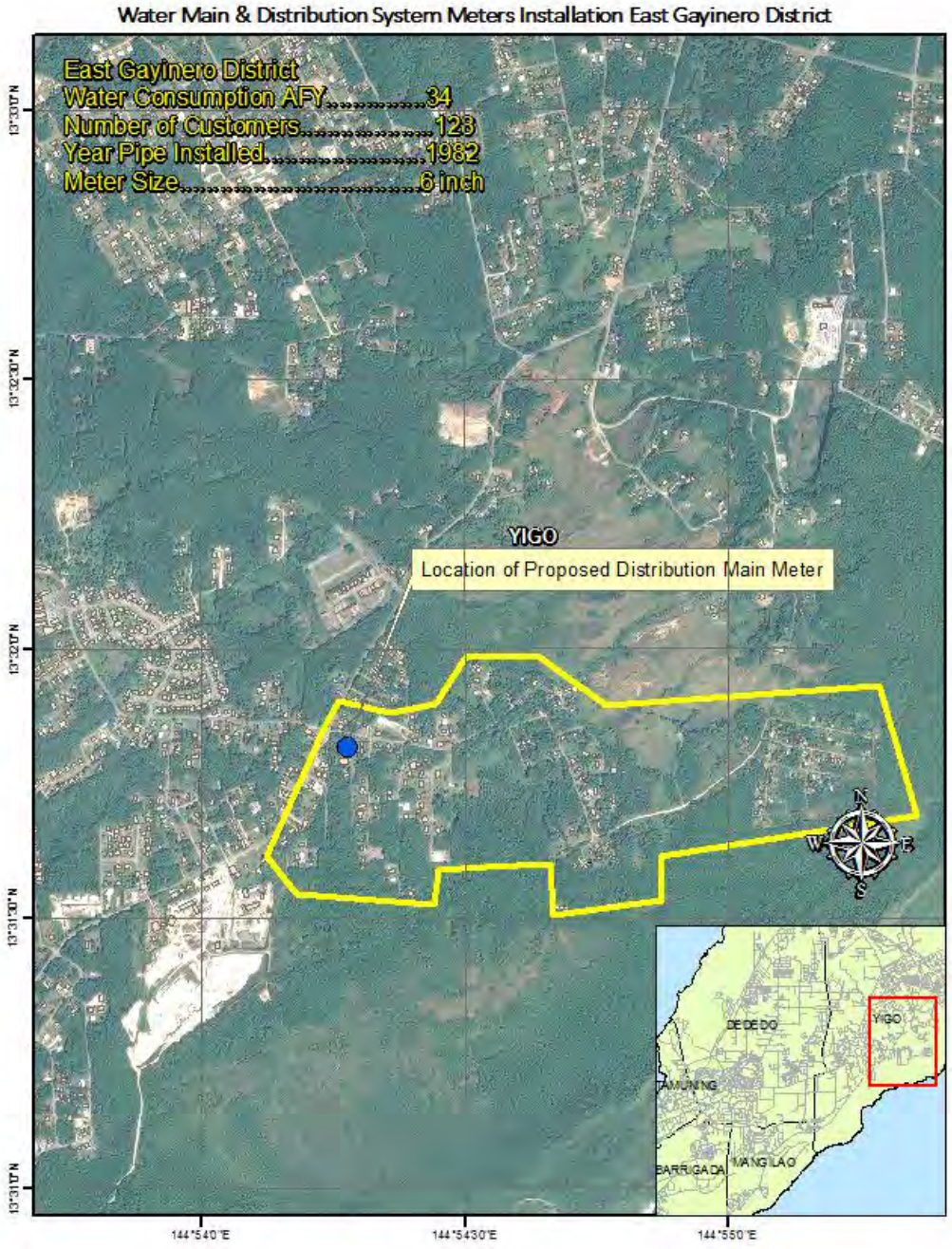

Water Main & Distribution System Meters Installation Agana District
Agana District
Water Consumption AFY.....1,003
Number of Customers.....1,365
Year Pipe Installed.....1985
Meter Size.....16 inch
Location of Proposed Distribution Main Meter
TAMUNING
AGANA
TAMUNING
MONGMONG
TOTO MAITE
ASAN
AGANA
HEIGHTS
(PAASAN)
CHALAN
PAGO
ORDOT
13°30'0"N
13°29'30"N
13°29'0"N
13°28'30"N
13°28'0"N
13°27'30"N
144°44'0"E
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144°45'0"E
144°45'30"E
144°46'0"E

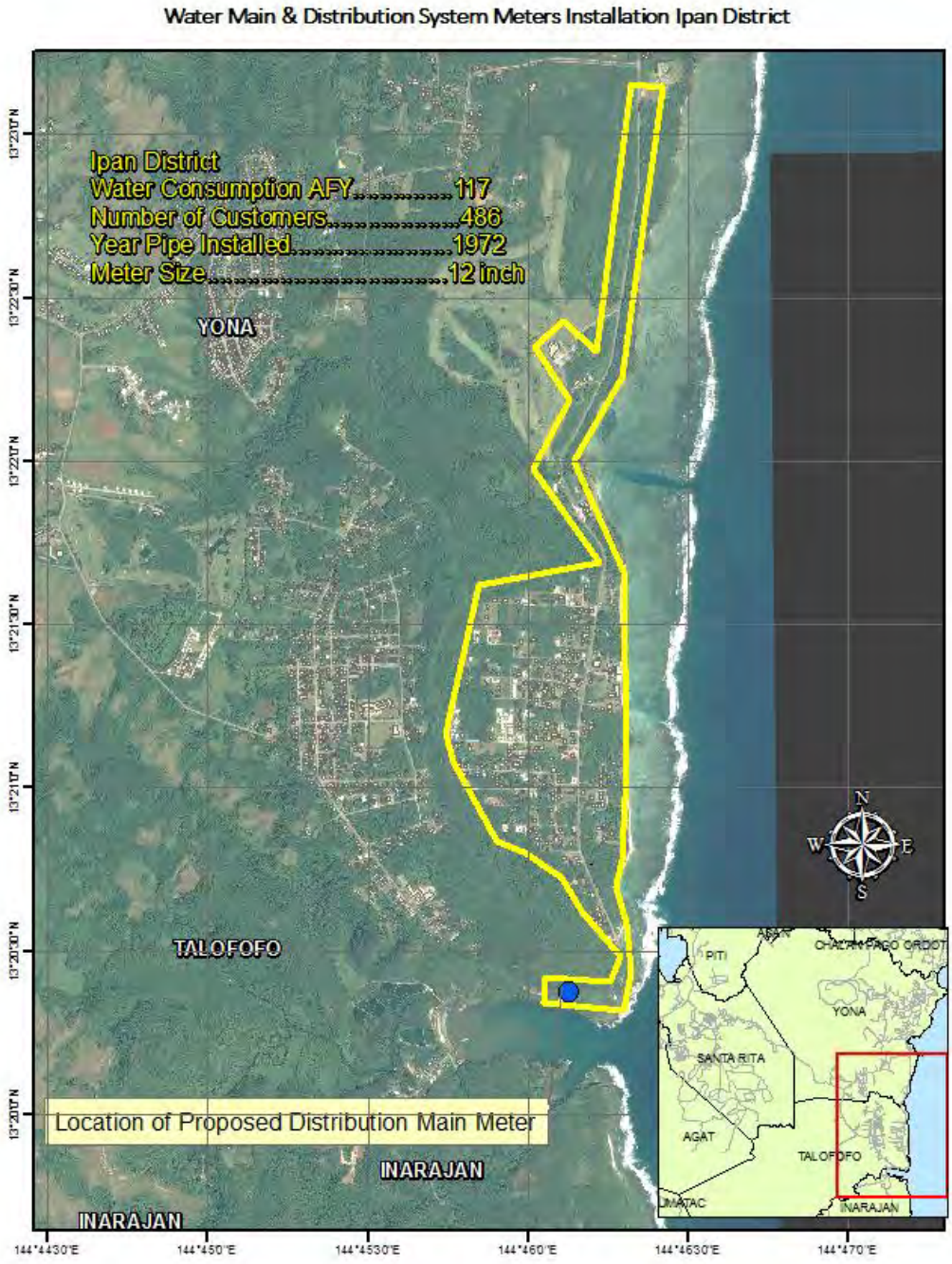

Water Main & Distribution System Meters Installation Agat District
Location of Proposed Distribution Main Meter
SANTA RITA
Agat District
Water Consumption AFY.....495
Number of Customer.....1,827
Year Pipe Installed.....1996
Meter Size.....12
AGAT
UMATAC
N
W
E
S
PITI
YONA
SANTA RITA
AGAT
TALOFOFO
UMATAC
INARAJAN
13°24'0"N
13°23'0"N
13°23'0"N
13°22'0"N
13°22'0"N
13°21'0"N
13°21'0"N
13°20'0"N
13°20'0"N
144°39'0"E
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144°41'0"E
144°41'30"E
144°42'0"E

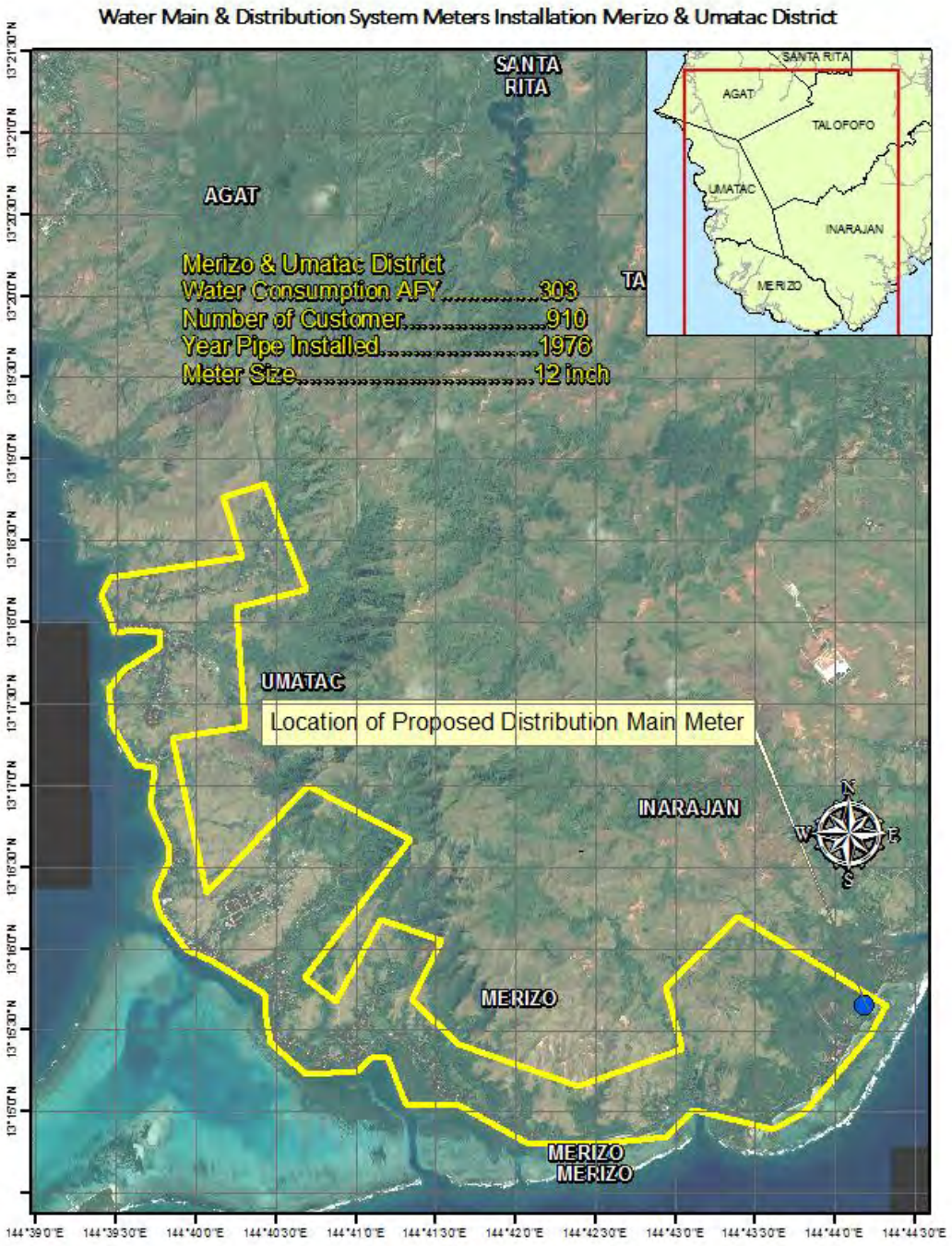

Water Main & Distribution System Meters Installation Anao District
Location of Proposed Distribution Main Meter
YIGO
Anao District
Water Consumption AFY.....37
Number of Customers.....144
Year Pipe Installed.....1992
Meter Size.....8 inch
N
W
E
S
DEDEDO
YIGO
MANGILAO
13°33'0"N
13°32'30"N
13°32'0"N
144°54'30"E
144°55'0"E
144°55'30"E

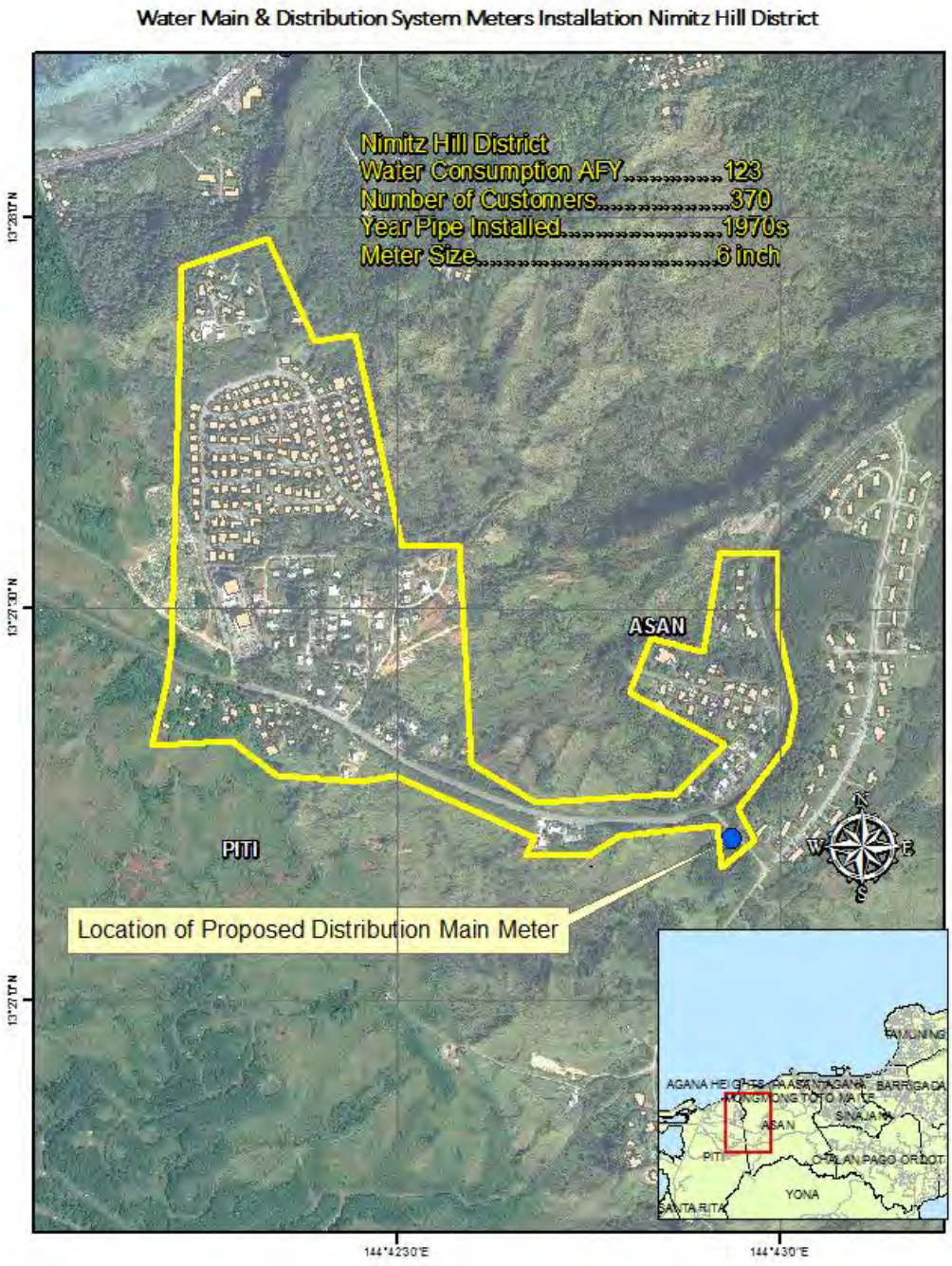

Water Main & Distribution System Meters Installation Asan District
Asan District
Water Consumption AFY.....103
Number of Customers.....413
Year Pipe Installed.....1991
Meter Size.....20 inch
Location of Proposed Distribution Main Meter
ASAN
PITI
13°29'0"N
13°28'30"N
13°28'0"N
144°42'30"E
144°43'0"E
144°43'30"E
N
W
E
S
PAMUNING
ASAN
SINAJANA
PITI
YONA
SANTA RITA

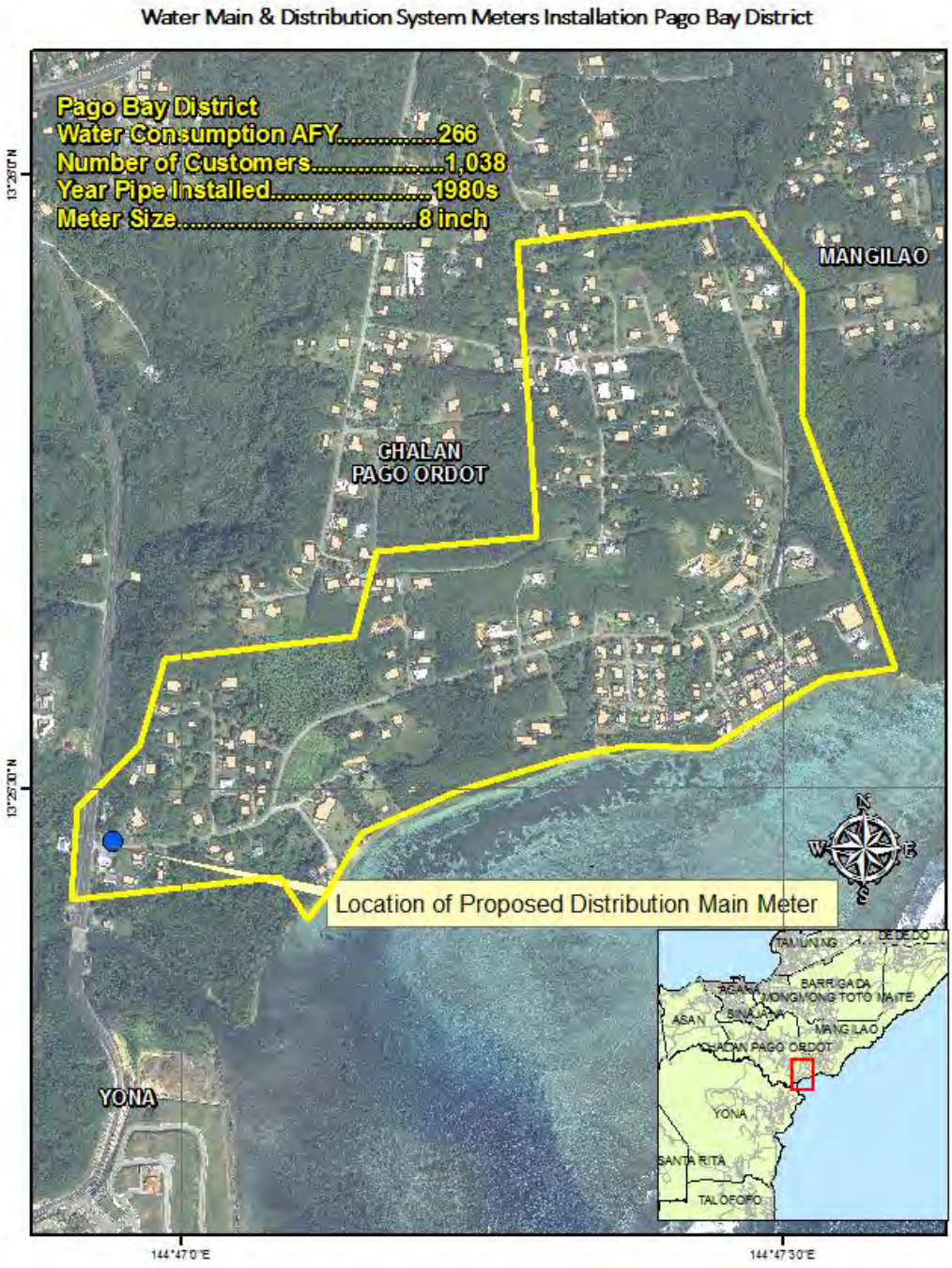

Water Main & Distribution System Meters Installation Baza Gardens District
Baza Garden District
Water Consumption AFY.....91
Number of Customers.....466
Year Pipe Installed.....1980s
Meter Size.....Two, 6 inch
Location of Proposed Distribution Main Meter
YONA
Location of Proposed Distribution Main Meter
13°23'0"N
13°22'30"N
144°45'0"E
144°45'30"E
N
W
E
S
PITI
YONA
SANTA RITA
AGAT
TAL OFOFO
INARAJAN
DMATAC

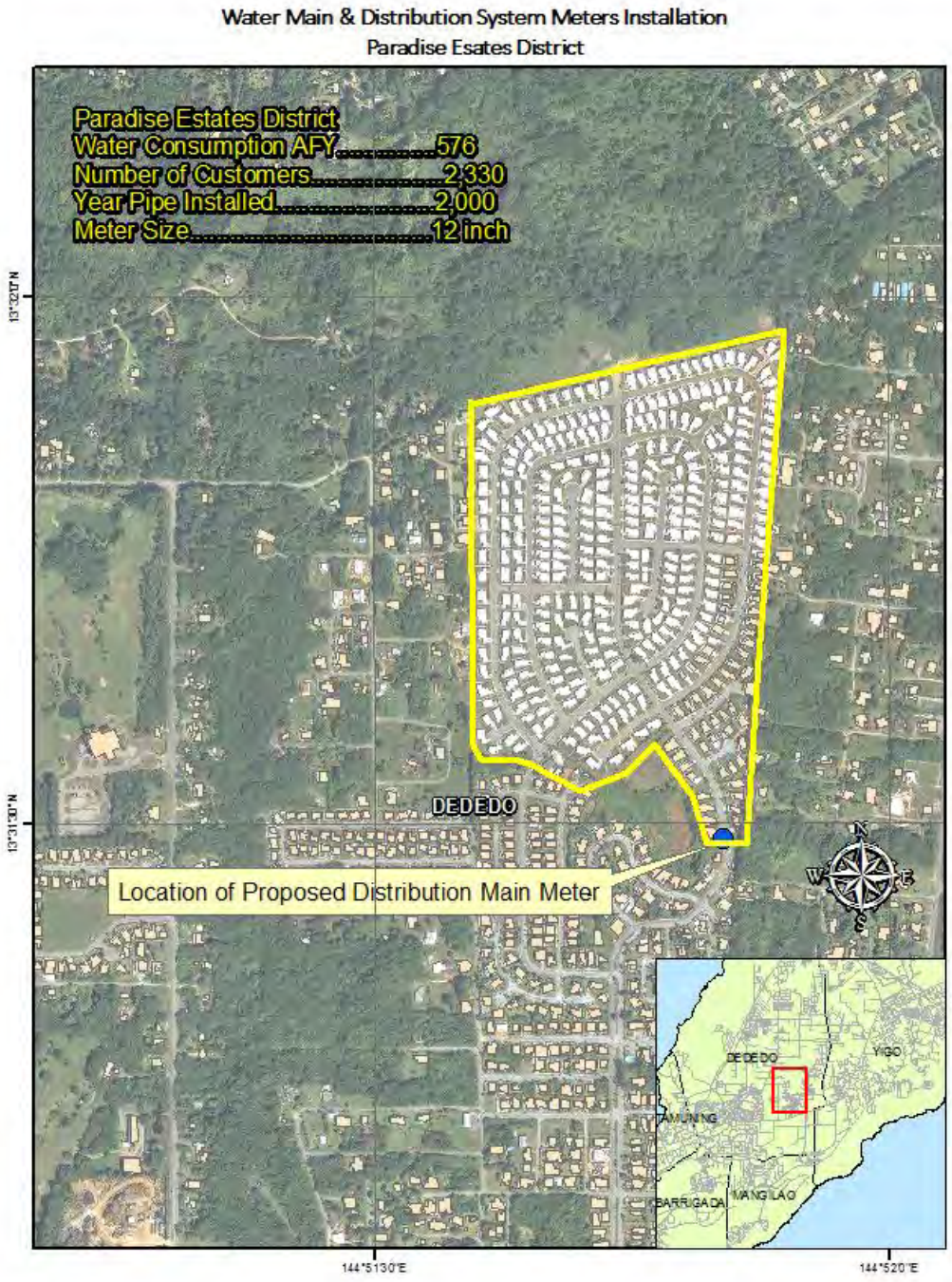

Water Main & Distribution System Meters Installation East Gayinero District
East Gayinero District
Water Consumption AFY.....34
Number of Customers.....123
Year Pipe Installed.....1982
Meter Size.....6 inch
YIGO
Location of Proposed Distribution Main Meter
N
W
E
S
DEDEDO
YIGO
AMUNING
BARRIGADA
MANGILAO
13°33'0"N
13°32'30"N
13°32'0"N
13°31'30"N
13°31'0"N
144°54'0"E
144°54'30"E
144°55'0"E

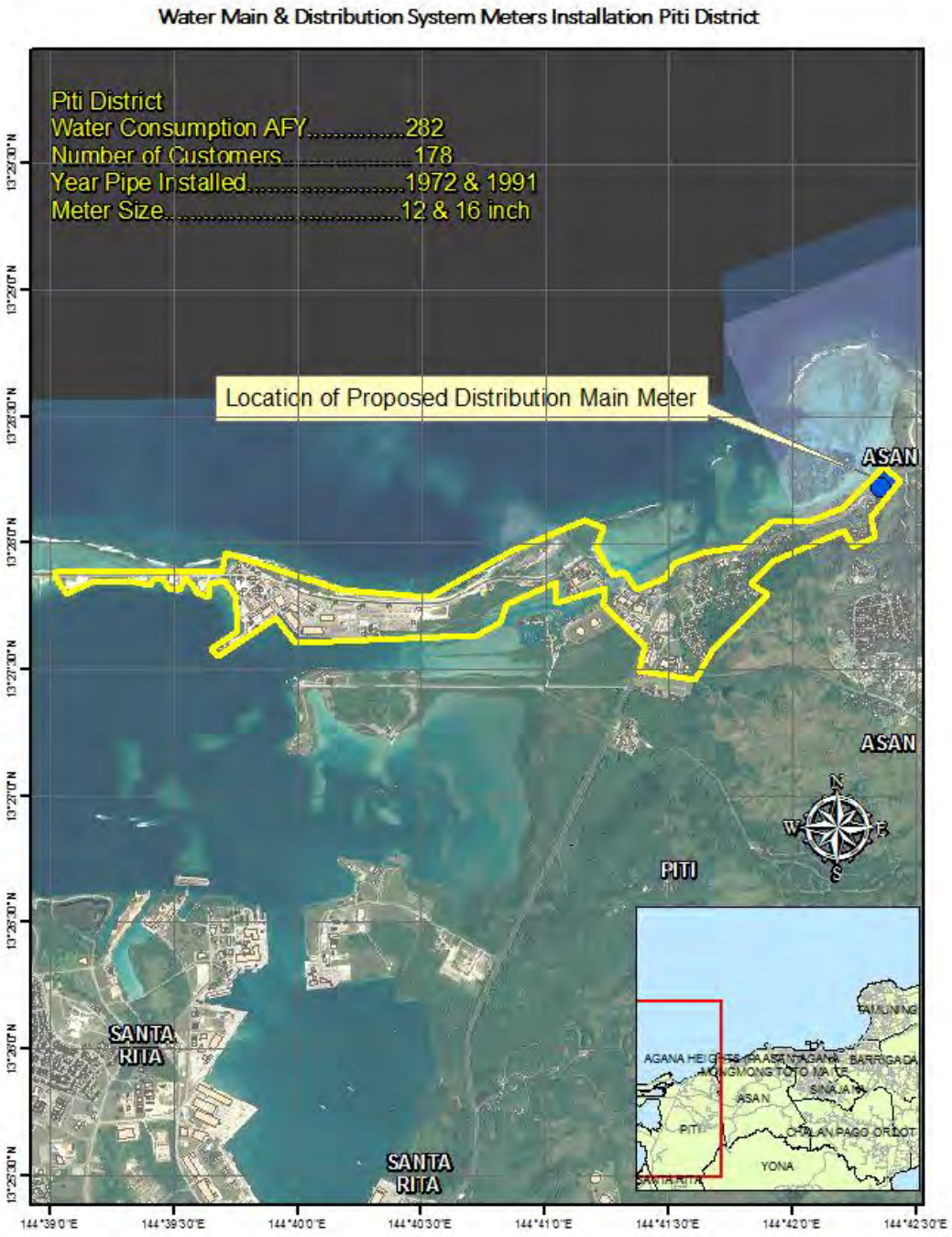

Water Main & Distribution System Meters Installation Ipan District
Ipan District
Water Consumption AFY.....117
Number of Customers.....486
Year Pipe Installed.....1972
Meter Size.....12 inch
YONA
TALOFOFO
INARAJAN
INARAJAN
Location of Proposed Distribution Main Meter
N
W
E
S
PITI
CHALAN PAGO ORDOT
YONA
SANTA RITA
AGAT
TALOFOFO
INARAJAN
JMATAC
13°23'0"N
13°22'30"N
13°22'0"N
13°21'30"N
13°21'0"N
13°20'30"N
13°20'0"N
144°44'30"E
144°45'0"E
144°45'30"E
144°46'0"E
144°46'30"E
144°47'0"E


Water Main & Distribution System Meters Installation Merizo & Umatac District
SANTA RITA
AGAT
Merizo & Umatac District
Water Consumption AFY.....303
Number of Customer.....910
Year Pipe Installed.....1976
Meter Size.....12 inch
TA
SANTA RITA
AGAT
TALOFOFO
UMATAC
INARAJAN
MERIZO
UMATAG
Location of Proposed Distribution Main Meter
INARAJAN
MERIZO
MERIZO
MERIZO
N
W
E
S
144°39'0"E
144°39'30"E
144°40'0"E
144°40'30"E
144°41'0"E
144°41'30"E
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144°44'0"E
144°44'30"E

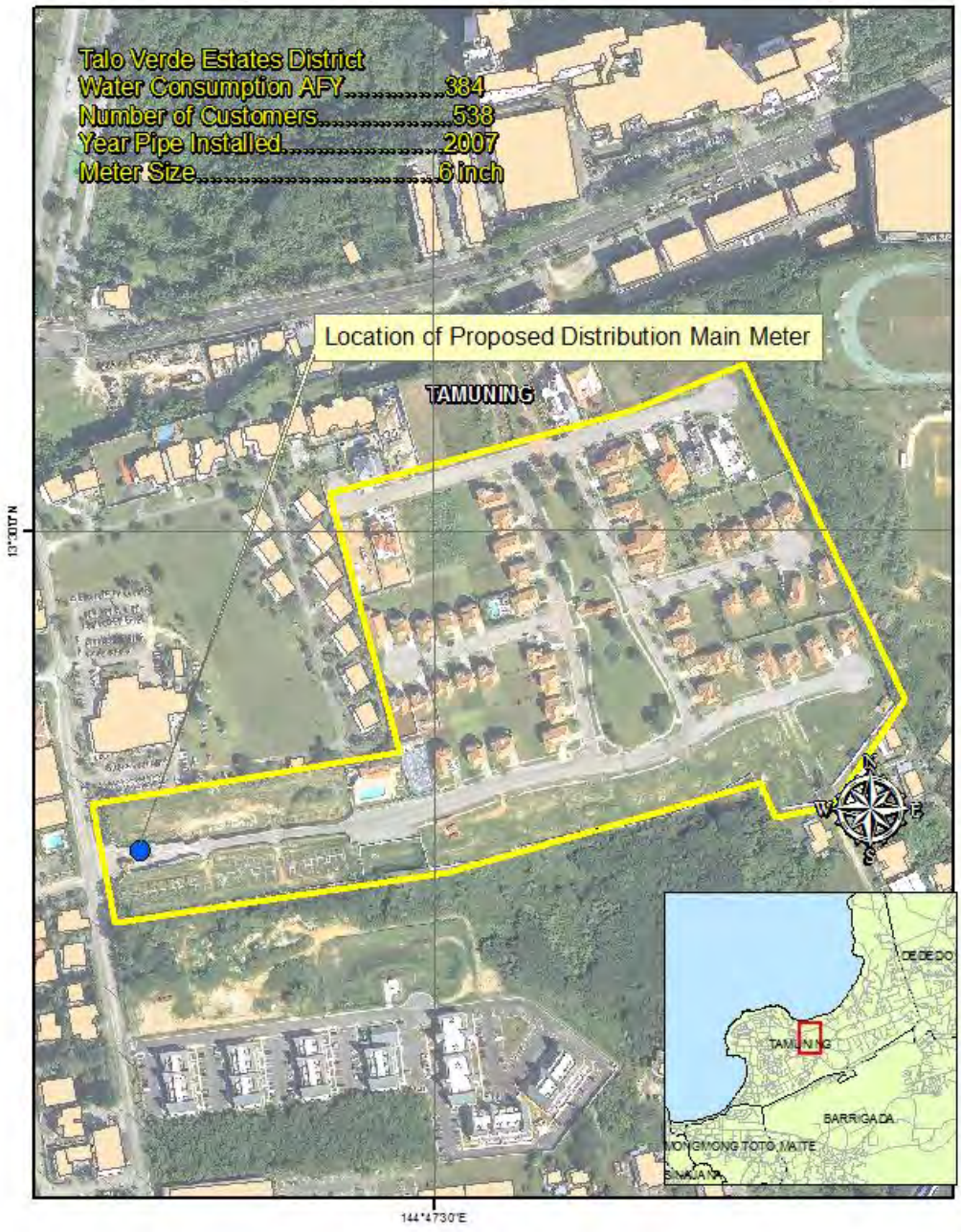

Water Main & Distribution System Meters Installation Nimitz Hill District
Nimitz Hill District
Water Consumption AFY.....123
Number of Customers.....370
Year Pipe Installed.....1970s
Meter Size.....6 inch
ASAN
PITI
Location of Proposed Distribution Main Meter
13°28'0"N
13°27'30"N
13°27'0"N
144°42'30"E
144°43'0"E
N
W
E
S
AGANA HEIGHTS
SINAJANA
ASAN
PITI
YONA
SANTA RITA

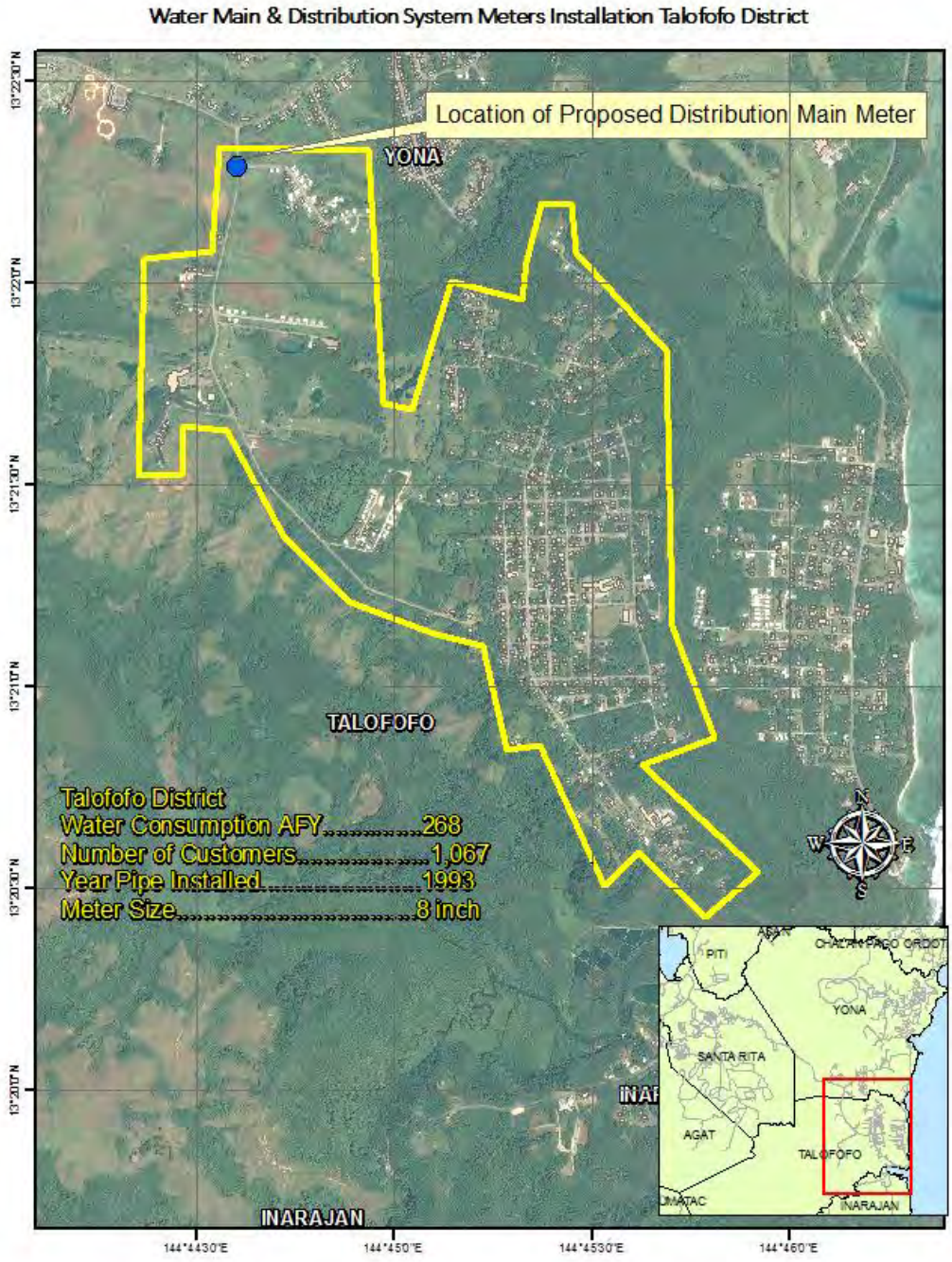

Water Main & Distribution System Meters Installation Pago Bay District
Pago Bay District
Water Consumption AFY.....266
Number of Customers.....1,038
Year Pipe Installed.....1980s
Meter Size.....8 inch
MANGILAO
GHALAN
PAGO ORDOT
YONA
Location of Proposed Distribution Main Meter
13°26'0"N
13°25'30"N
144°47'0"E
144°47'30"E
N
W
E
S
TAMUNING
DEDEDO
BARRIGADA
AGANA
MONGMONG TOTO MAITE
ASAN
SINAJANA
MANGILAO
GHALAN PAGO ORDOT
YONA
SANTA RITA
TALOFOFO


Water Main & Distribution System Meters Installation
Paradise Esates District
Paradise Estates District
Water Consumption AFY.....576
Number of Customers.....2,330
Year Pipe Installed.....2,000
Meter Size.....12 inch
DEDEDO
Location of Proposed Distribution Main Meter
144°51'30"E
144°52'0"E


Water Main & Distribution System Meters Installation Piti District
Piti District
Water Consumption AFY.....282
Number of Customers.....178
Year Pipe Installed.....1972 & 1991
Meter Size.....12 & 16 inch
Location of Proposed Distribution Main Meter
ASAN
ASAN
PITI
SANTA RITA
SANTA RITA
N
W
E
S
YONA
144°39'0"E
144°39'30"E
144°40'0"E
144°40'30"E
144°41'0"E
144°41'30"E
144°42'0"E
144°42'30"E

Water Main & Distribution System Meters Installation Talo Verde Estates District




Water Main & Distribution System Meters Installation Talofofo District
Location of Proposed Distribution Main Meter
YONA
TALOFOFO
INARAJAN
Talofofo District
Water Consumption AFY.....268
Number of Customers.....1,067
Year Pipe Installed.....1993
Meter Size.....8 inch
PITI
SANTA RITA
AGAT
YONA
TALOFOFO
INARAJAN
144°44'30"E
144°45'0"E
144°45'30"E
144°46'0"E

Evaluation Criteria

Evaluation Criteria A - Quantifiable Water Savings

MUNICIPAL METERING

A. How has the estimated average annual water savings that will result from the project been determined?

The percentage of water loss fluctuates, but it had been pegged at 59% in a recent GWA audit report. Given that GWA does not yet have any system meters in place, an assumption has to be made that the loss value is an average for all locations. An assumed district total volume received and assumed loss can be calculated by:

Assumed District Total Received = Metered Consumption / 0.41
Assumed District Loss = Assumed District Total Received – Metered Consumption

Based on this, the 14 project districts have a total assumed loss of 5,871.54 AFY. With an effort to reduce water loss to a minimum of 40% using leak detection and repair, a water savings is calculated by:

*Water Savings = Assumed District Loss – (Assumed District Total Received * 0.40)*

Thus, a total water savings of 1,890.84 AFY can be achieved.

Project District Totals	
Metered Consumption (gal/yr)	1,329,544,793.00
Metered Consumption (gal/day)	3,640,170.00
Metered Consumption (AFY)	4,080.22
Assumed District Total Received (gal/yr)	3,242,792,178.05
Assumed District Total Received (gal/day)	8,878,463.43
Assumed District Total Received (AFY)	9,951.76
Assumed Loss (gal/yr)	1,913,247,385.05
Assumed Loss (gal/day)	5,238,293.42
Assumed Loss (AFY)	5,871.54
Assumed Leak Rate (gpm)	3,637.70
Water Conserved Upon Meeting Yr1 Target Loss Goal (gal/yr)	616,130,513.83
Water Conserved Upon Meeting Yr1 Target Loss Goal (gal/day)	1,686,908.05
Water Conserved Upon Meeting Yr1 Target Loss Goal (AFY)	1,890.84
Annual Cost Savings	$ 903,740.24
Daily Cost Savings	$ 2,474.36

B. How have current distribution system losses and/or the potential for reductions in water use by individual users been determined?

The potential for reductions in water use by individual users has not yet been determined. Current distribution system losses have been determined by calculating the difference between the metered water production and metered water consumption. GWA's water system is large and it is difficult to target the locations of where the loss occurs without district and/or pressure zone meters.

C. For installing individual water user meters, refer to studies in the region or in the applicant's service area that are relevant to water use patterns and the potential for reducing such use. In the absence of such studies, please explain in detail how expected water use reductions have been estimated and the basis for the estimations.

Not applicable.

D. If installing distribution main meters will result in conserved water, please provide support for this determination (including, but not limited to leakage studies, previous leakage reduction projects, etc.). Please provide details underlying any assumptions being made in support of water savings estimates (e.g., how leakage will be reduced once identified with improved meter data).

Installation of distribution main/district meters will not directly result in conserved water. However, it will allow GWA to calculate the actual water loss for that area. Given the water loss threshold (40%) for a metered district, leak detection and repair crews can focus their work in a zone until losses meet or drop below it.

E. What types (manufacturer and model) of devices will be installed and what quantity of each?

Makes and models of meters will be determined during the design phase of the project. However, the preferred metering technologies are electromagnetic and ultrasonic, and it must be capable of transmitting data through the Badger/Orion AMI environment. A total of 16 meters will be required for the 14 project sites; five 6", three 8", five 12", two 16", and one 20".

F. How will actual water savings be verified upon completion of the project?

Data collection for metered consumption and production is ongoing on a monthly basis. As the distribution main meters go live, GWA will be able to transition the districts from assumed losses to actual, calculated losses using metered water received and metered consumption data, creating a baseline. GWA will then produce a simple monthly water audit of each district, and this report will be submitted to operations and management. It is expected that district imports will be reduced as water loss is addressed and will be reflected in successive reports.

Evaluation Criteria E - Department of the Interior Priorities

This project does not appear to fit under any of the established Department of the Interior priorities. However, Guam is under the administrative oversight of DOI as per Executive Order 10077.

Evaluation Criteria F - Implementation and Results

GWA does not have a Water Conservation Plan and/or a System Optimization Review in place.

Evaluation Criteria G - Nexus to Reclamation Project Activities

This project has no connections to any existing Reclamation project activities.

Evaluation Criteria H - Additional Non-Federal Funding

GWA's non-federal cost share of 50% meets the minimum requirement as follows:

A.	*Total Project Cost =*	*$2,000,000 (100%: B+C)*
B.	*Local Non-Federal Cost Share =*	*$1,000,000 (50%: B/A)*
C.	*BOR Grant Request =*	*$1,000,000 (50%: C/A)*

Program Questions: Environmental and Cultural Resources Compliance

Question:	Yes/Explanation	No
1. Will the proposed project impact the surrounding environment(soil,[dust], air, water [quality and quantity], animal habitat)?	Earthmoving will be limited to previously disturbed areas on existing right of way.	
2. Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?		X
3. Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "waters of the United States?" If so, please describe and estimate any impacts the project may have.		X
4. When was the water delivery system constructed?	Much of the water system was constructed between 1970 through 1990. The newest project site was constructed in 2007.	
5. Will the project result in any modification of or effects to, individual features of an irrigation system (e.g. head gates, canals, or flumes)?		X
6. Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?		X
7. Are there any known archeological sites in the proposed project area?		X
8. Will the project have a disproportionately high and adverse effect on low income or minority populations?		X
9. Will the project limit access to a ceremonial use of Indian scared sites or result in other impacts on tribal lands?		X
10. Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?		X

The project involves work that will be accomplished on exiting and disturbed land, specifically on the government rights of way; therefore, minimal environmental impact is expected. It is anticipated that the project will be eligible for a categorical exclusion. The GWA will consult environmental and historic agencies (below) concerning the project, although a letter authorizing the GWA to initiate the National Environmental Policy Act (NEPA) and Section 106 process on behalf of the Bureau of Reclamation is required. The GWA expects to be able to forward

consultations with no significant affects to the Bureau of Reclamation, the Planning and Grants section has performed dozens of consultations for its EPA Safe Drinking & Clean water programs.

Agencies that will be consulted for a record of environmental consideration as applicable:

- Guam Department of Agriculture, Fish and Wildlife Division
- Guam Department of Agriculture, Forestry Division
- Guam Environmental Agency, Water Quality Division
- U.S. Fish & Wildlife
- Parks & Recreation, Guam Historic Preservation Office

Required Permits or Approvals

All work will be competitively procured abiding by the Government of Guam Procurement Code. Architectural and Engineering contracts awarded will follow the standard contracting documents established by the Engineers Joint Contract Documents Committee (EJCDC) and as an addendum pertinent grant requirement included. Engineering firms and construction firms doing business with the GWA is contractually required to obtain all required municipal building permits. All building permits require that it runs through a process similar to NEPA & section 106. Having performed NEPA prior to the project start date will ensure a smooth municipal building permitting review and approval. All construction work will be on contract. The GWA will intervene in the process in special cases where it is beyond the control of the firm or construction contractor; and it deems it is in the best interest of GWA and the project to do so.

Letters of Project Support

Guam Congress Delegate, the Honorable Madeline Z. Bordallo's endorsement letter can be found in Appendix B.

Consolidated Commission on Utilities Official Resolution

The GWA is unable to submit an official board resolution with this application, because of the timing of meeting. Later this month on May 22, 2018 a meeting is scheduled and GWA expects the resolution to pass in approving this project and obligating the GWA to cover the cost of its share of the match of $1,000,000 or 50 percent of total project costs.

Key Management

Miguel C. Bordallo P.E., General Manager was selected by the CCU effective January 4, 2016. Mr. Bordallo has over 25 years of experience in environmental/mechanical engineering and construction in California, Guam and Micronesia. Prior to joining GWA, Mr. Bordallo was a consulting engineer providing design and design-build services for water and wastewater infrastructure projects and was also vice-president of a large construction company on Guam. Mr. Bordallo holds a B.S. in Mechanical Engineering with honors from Marquette University in Milwaukee, Wisconsin, and is a licensed professional engineer on Guam.

Greg P. Cruz, CPA has served as Chief Financial Officer for GWA since his appointment in July 2007. He has over 25 years of experience in the accounting profession, including 15 years in management capacity. He has held positions in the telecommunications industry, public

accounting and various Government of Guam agencies. Mr. Cruz earned a B.A. in accounting from Western Washington University in Bellingham, Washington, and is a Certified Public Accountant and licensed to practice in Guam.

Paul J. Kemp, Assistant General Manager, Compliance and Safety has 56 years of experience in management related to water quality and chemistry for natural waters, drinking water, water for industrial applications, ultra-high purity water, wastewater treatment, water recovery for reuse, and environmental and safety compliance and training. Prior to joining GWA in 2003, he has held engineering and management positions in private laboratories, research and manufacturing companies as well as teaching and research positions in higher education. Mr. Kemp was trained as an analytical chemist specializing in spectroscopic methods and water analysis and received a B.S. in chemistry from Iowa State University and an M.S. in Analytical Chemistry from Oregon State University.

Budget

Funding Plan and Letters of Commitment

1. How you will make your contribution to the cost-share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).

The entire project cost is $2,000,000. We respectfully request funding from the BOR in the amount of one million dollars. GWA's cost share towards the project is $1 million in cash from GWA's Revenue Bond funds. The local cost share of the project is 50% and the BOR funding is 50%. Funding from BOR will support the entire three-year project period.

2. Describe any donations or in-kind costs incurred before the anticipated Project start date that you seek to include as project costs.

There are no costs incurred before the project start date that are included as project costs.

3. Describe any funding requested or received from other Federal partners.

The proposed project does not include Federal partners. See Table C.

Table C. Summary of Non-Federal and Federal Funding Sources

Funding Sources	Amount
Non-Federal Entities	
Guam Waterworks Authority	$ 1,000,000.00
Other Federal Entities	
None	$ -
Requested Reclamation Funding	$ 1,000,000.00
Total Project Cost	**$ 2,000,000.00**

4. Describe any pending funding requests that have not yet been approved, and explain how the project will be affected if such funding is denied.

There are no pending funding requests.

Budget Proposal

Table D. GWA Distribution Main Metering Project Budget Proposal

Budget Item Description	Computation			Total Cost
	Qty	Unit	Unit Cost	
Salaries and Wages				
Personnel costs are not included in the scope of the grant application.				$ -
Fringe Benefits				
Not Applicable				$ -
Travel				
Not Applicable				$ -
Equipment				
Not Applicable				$ -
Supplies and Materials				
Meter Field Verification Device	1	EA	$ 4,000.00	$ 4,000.00
Contractual/Construction				
Project Design	1	LS	$ 500,000.00	$ 500,000.00
Installation of 6" Distribution Main Meter	5	EA	$ 30,840.00	$ 154,200.00
Installation of 8" Distribution Main Meter	3	EA	$ 40,000.00	$ 120,000.00
Installation of 12" Distribution Main Meter	5	EA	$ 60,000.00	$ 300,000.00
Installation of 16" Distribution Main Meter	2	EA	$ 121,000.00	$ 242,000.00
Installation of 20" Distribution Main Meter	1	EA	$ 193,000.00	$ 193,000.00
Site Electrical and Communications Installation	14	EA	$ 31,200.00	$ 436,800.00
Orion Data Center Software Configuration	1	LS	$ 10,000.00	$ 10,000.00
Environmental Review				
Equal to approximately 2% of total project cost	1	LS	$ 40,000.00	$ 40,000.00
Other				
Not Applicable				$ -
Indirect				
Not Applicable				$ -
Total Estimated Project Costs				**$ 2,000,000.00**

Budget Narrative

1. Salaries and Wages

Total BOR Request: $0

Personnel costs (salaries and wages) for the project are not included in the project budget to facilitate ease of GWA's reporting to BOR. Personnel costs will be provided by GWA outside of the grant scope. Design, construction, and installation components of this project will be procured through competitive bids.

2. Fringe Benefits

Not applicable.

3. Travel

Not applicable.

4. Equipment

Not applicable.

5. Materials and Supplies

Total BOR Request: $0

The costs for the materials and supplies portion of the project will go towards a meter verification device. It will allow the distribution main meters to be verified on site without interruption of water service. This tool is necessary to ensure that meter readings are accurate within the manufacturer's specified tolerances.

6. Contractual

Total BOR Request: $960,000

This grant request includes the costs of the materials and installation of the distribution main flow meters. The make and models of meters and isolation valves are to be determined during the design phase of the project. It is anticipated and recommended that the distribution main meters will be compatible with the Badger/Orion automated metering infrastructure (AMI) environment as all current GWA service meters are AMI-capable. Work to be conducted at each site includes equipment mobilization, erosion control, traffic control, pavement removal and restoration, excavation, vault installation, pipe work, meter installation, backfilling, and testing and inspection of the distribution main meter.

GWA will be responsible for the costs of all the remaining project activities in the Contractual category, and these include:

- Project design
- Electrical site improvements
- Communications installation and setup
- Data Center application configuration

Upon completion of the project, the customer meters within the established districts may be migrated over to a fixed network operation mode which would allow GWA the ability to perform a district water audit at a moment's notice. This task is outside the scope of the project and costs will be incurred by GWA.

Costs for the Contractual category were based on past GWA projects with similar scope.

7. Environmental and Regulatory Compliance Costs

Total BOR Request: $40,000

The project will be evaluated for NEPA compliance during Year 1 of the project, and it is expected that the project will be designated a Categorical Exclusion for NEPA because the it will result in minor construction activities and will utilize existing facilities. Therefore, the total project budget includes costs of approximately 2% ($40,000) of the total project cost to cover GWA's staff time to prepare, submit, and coordinate environmental documents, and Reclamation's cost to review the documents.

8. Other Expenses

Not applicable.

9. Indirect Costs

Not applicable.

10. Total Costs

The cost of the entire distribution main metering project is $2,000,000, of which $1,000,000 is requested from the Bureau of Reclamation, and $1,000,000 is Guam Waterworks Authority's cost share. Project costs stated herein are estimates and may be adjusted upon work contracting. A breakdown of costs is shown in Table E.

Table E. Budget Cost Breakdown

Budget Item Description	Computation			Total Cost
	Qty	Unit	Unit Cost	
Project Design	1	LS	$500,000.00	$ 500,000.00
6" Electromagnetic Flow Meter	5	EA	$ 4,000.00	$ 20,000.00
6" Isolation Valve	10	EA	$ 1,500.00	$ 15,000.00
Vault for 6" Meter	5	EA	$ 4,000.00	$ 20,000.00
Site Work for 6" Meter	5	EA	$ 19,840.00	$ 99,200.00
8" Electromagnetic Flow Meter	3	EA	$ 5,000.00	$ 15,000.00
8" Isolation Valve	6	EA	$ 2,500.00	$ 15,000.00
Vault for 8" Meter	3	EA	$ 7,000.00	$ 21,000.00
Site Work for 8" Meter	3	EA	$ 23,000.00	$ 69,000.00
12" Electromagnetic Flow Meter	5	EA	$ 10,000.00	$ 50,000.00
12" Isolation Valve	10	EA	$ 5,000.00	$ 50,000.00
Vault for 12" Meter	5	EA	$ 8,000.00	$ 40,000.00
Site Work for 12" Meter	5	EA	$ 32,000.00	$ 160,000.00
16" Electromagnetic Flow Meter	2	EA	$ 15,000.00	$ 30,000.00
16" Isolation Valve	4	EA	$ 14,000.00	$ 56,000.00
Vault for 16" Meter	2	EA	$ 13,000.00	$ 26,000.00
Site Work for 16" Meter	2	EA	$ 65,000.00	$ 130,000.00
20" Electromagnetic Flow Meter	1	EA	$ 25,000.00	$ 25,000.00
20" Isolation Valve	2	EA	$ 24,000.00	$ 48,000.00
Vault for 20" Meter	1	EA	$ 20,000.00	$ 20,000.00
Site Work for 20" Meter	1	EA	$ 100,000.00	$ 100,000.00
AMI Data Collector/Network Gateway	14	EA	$ 6,000.00	$ 84,000.00
Outdoor Broadband Wireless Mesh Router	14	EA	$ 6,000.00	$ 84,000.00
AMI Fixed Network Endpoint	14	EA	$ 200.00	$ 2,800.00
Pressure Transmitter	14	EA	$ 2,000.00	$ 28,000.00
Communications Setup and Testing	14	EA	$ 2,000.00	$ 28,000.00
Electrical Site Improvements	14	EA	$ 15,000.00	$ 210,000.00
Environmental Review	1	LS	$ 40,000.00	$ 40,000.00
Meter Field Verification Device	1	EA	$ 4,000.00	$ 4,000.00
Orion Data Center Software Configuration	1	EA	$ 10,000.00	$ 10,000.00
			Grand Total	**$ 2,000,000.00**

Appendix A

Guam Waterworks Authority FY 2017 Financial Highlights Report

April 24, 2018

Guam Waterworks Authority
FY 2017 Financial Highlights

April 24, 2018

For the second consecutive year, the Guam Waterworks Authority (GWA) qualified as a low-risk auditee. No findings pertaining to federal funds were identified in fiscal year (FY) 2017. Independent auditors Deloitte and Touche, LLP rendered an unmodified "clean" opinion on GWA's financial statements and compliance over major federal programs. GWA closed FY 2017 with a significant increase in net position (net income) of $40.4 million (M), primarily due to the $21.8M in federal capital grants, compared to the 27.2M in net income the prior year. The 2016 financial statements were restated due to the implementation of the Governmental Accounting Standards Board (GASB) Statement No. 73.

GWA Capital Improvement Plan, Debt Service, and Future Borrowings
In FY 2017, capital assets increased by $72.0M. The increase is attributable to on-going major capital improvement projects associated with the 2011 Federal Court Order and GWA's five-year Capital Improvement Plan (CIP). CIP project costs were estimated at $450M-$500M. On-going construction projects included replacement of wastewater treatment plant, transmission lines, booster pump upgrades, sewer line rehabilitation or replacements, deep well rehabilitations, acquisition of mechanical and electrical equipment, and general plant improvements. GWA is currently working with Guam contractors on the H-2B visa issue due to the industry's decreasing availability of foreign workers. This poses a conundrum for the local construction industry and has already led to construction delays, escalating costs, and fewer bidders for GWA projects due to the size and complex nature of GWA's project.

In fall 2016, GWA was awarded $55.3M in grants from the U.S. Department of Defense Office of Economic Adjustment. This was to initiate projects associated with the design and construction of improvements needed to bring the Northern District Wastewater Treatment Plant (NDWWTP) to full secondary treatment capability as required by the new National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency. GWA is on schedule to complete the NDWWTP upgrades by December 2021. In late 2017, GWA received an additional grant totaling $117.9M for construction of wastewater improvements related to the build-up.

GWA had a long-term debt outstanding of $515.0M in FY 2017. This is a $7.9M decrease from the $522.9M in FY 2016. In December 2017, GWA refinanced the 2010 revenue bond series.

Decrease in Operating Revenues and Increase in Operating Expenses
GWA's total net position (net income) increased by $40.4M from $182.5M in FY 2016 to $222.9M in FY 2017.

Operating revenues totaled $104.4M or a 1% decrease compared to $105.4M in the prior year. The decline was primarily due to a 2% or $645 thousand (K) decrease in water and wastewater revenues. Of GWA's $104.4M operating revenues (net of bad debts expense), water revenues ($66.6M) accounted for 64% and wastewater revenues ($38.7M) accounted for 37%. The residential (48%), commercial (21%), and hotel (20%) sectors continue to account for 89% of water revenues. While hotel water revenues increased by $383K, residential water revenues decreased by $650K.

Operating and maintenance expenses increased by $3.5M from $68.8M in FY 2016 to $72.4M in FY 2017. The top two contributing factors were increases in depreciation expenses and water purchases. Navy water purchases increased due to a combination of approximately 17.6K additional kgals of water purchases and a 15% increase in the Navy's tariff. As a result, operating income was $32.0M compared to $36.5M, a decline of $4.5M.

Unaccounted Water
Historically, one of GWA's most challenging problems is the amount of unaccounted for (non-revenue) water. In FY 2017, approximately 59% of water produced annually is not consumed or contributing to GWA's revenue due to water losses (leaks or breaks) and unauthorized or unbilled consumption. Leaks, for the most part, account for the largest source of unaccounted for water. GWA has engaged in a water loss prevention program that includes leak detection to help reduce non-revenue water.

FY 2016 Financial Statements Restatement
In FY 2017, GWA implemented GASB No. 73, which aligns the reporting of pensions, ad hoc cost-of-living adjustments (COLA) and supplemental annuity payments. The implementation of this statement had a material effect on GWA resulting in the restatement of its FY 2016 financial statements. GWA's FY 2016 salaries, wages, and benefits increased by $1.4M and beginning net position was reduced by $9.8M. This resulted in an $11.2M decrease in total net position from $193.7M to $182.5M for FY 2016 and corresponding increase in net pension liability by $12.7M to $50.9M.

As of FY 2017, GWA's net pension liability of $49.2M includes its proportionate share of the Government of Guam's (GovGuam) pension, ad hoc COLA, and supplemental annuity payments. Of the $49.2M, $8.9M was for the ad hoc COLA/supplemental annuity plan for Defined Benefit retirees and $1.6M was for ad hoc COLA plan for Defined Contribution Retiree System retirees. Pension expense amounted to $4.6M in FY 2017 and $5.8M in FY 2016.

Other Post-Employment Benefits (OPEB)
GASB No. 75 (Post-Employment Benefits Other than Pensions) is effective and will be recorded in GWA's FY 2018 financial statements. This pertains to post-employment medical, dental, and life insurance benefits to retirees, spouses, children, and survivors. Upon implementation, it is anticipated that GWA will record an additional $36.4M liability as of FY 2017 arising from other post-employment benefits.

Reports on Compliance and on Internal Control and Major Federal Programs
GWA received an unmodified "clean" opinion on the Report on Compliance and Internal Controls and on major federal programs. The auditors did not identify any findings in FY 2017. In addition, the Management Letter identified seven deficiencies pertaining to internal control over information technology environment.

The Letter to Those Charged with Governance identified two deficiencies pertaining to: 1) Construction in Progress projects not timely transferred to the fixed assets account, and 2) Inactive Accounts Receivable balance increased due to failure to timely disconnect meters and terminate accounts for non-payment.

For more details, refer to the Management Discussion and Analysis in the audit report at www.opaguam.org and at www.guamwaterworks.org.

Appendix B

Letter of Endorsement

Madeleine Z. Bordallo, Congresswoman, U.S. House of Representatives

May 9, 2018

MADELEINE Z. BORDALLO
GUAM
ARMED SERVICES COMMITTEE
RANKING MEMBER, SUBCOMMITTEE ON READINESS
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES
NATURAL RESOURCES COMMITTEE
SUBCOMMITTEE ON INDIAN, INSULAR, AND ALASKA NATIVE AFFAIRS
SUBCOMMITTEE ON WATER, POWER AND OCEANS

Congress of the United States
House of Representatives

WASHINGTON, D.C. OFFICE:
2441 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225–1188
FAX: (202) 226–0341
DISTRICT OFFICE:
120 FATHER DUENAS AVENUE
SUITE 107
HAGÅTÑA, GUAM 96910
(671) 477–4272
FAX: (671) 477–2587
http://www.house.gov/bordallo

May 9, 2018

The Honorable Brenda Burman, Commissioner
Bureau of Reclamation
U.S. Department of the Interior
1849 C Street NW, Mail Code #91-00000
Washington, DC 20240

RE: Guam Waterworks Authority's Application for WaterSMART Grant

Dear Commissioner Burman:

I write in strong support of the Guam Waterworks Authority's grant application under the Bureau's WaterSMART Program. In 1986, Congress made Guam and the other Insular Area territories eligible "Reclamation states" (Public Law 99-396). To date, Guam has never received, or to my knowledge applied for, Reclamation grant funding. I therefore urge you to give all due consideration to the Guam Waterworks Authority's application and, ultimately, approve this critical grant funding for our island's *only* public water utility.

As noted in the application, the Guam Waterworks Authority intends to use this WaterSMART grant, if approved, to install remote-reading district meters (also called "system" or "pressure-zone" meters) to address unaccounted for water loss, estimated at an alarming 58 percent. This will allow the Guam Waterworks Authority to better detect leaks, focus waterline repairs where they are needed most, and capture lost revenue. This would complement the Guam Waterworks Authority's very substantial investment in our public water system, which serves both civilian households *and* U.S. military bases on island, financed by a recent revenue-bond offering.

The Administration has committed publicly to supporting economic development in the U.S. territories and making federal investments to modernize our infrastructure. I hope that the Bureau will do its part to meet that commitment, in full, by approving the Guam Waterworks Authority's application for this WaterSMART grant. Given legacy systems and limited territorial resources, much-needed upgrades like installing meters to account for significant water loss across our waterlines are unlikely to happen without federal support.

Please do not hesitate to contact me to discuss further the importance of the Guam Waterworks Authority's continued modernization efforts and the need for this Reclamation funding. For additional information, your staff may contact my Legislative Assistant, Iain Hart. Thank you for your leadership and for considering my views in support of this application under the WaterSMART Program.

Sincerely,

Madeleine Z. Bordallo

MADELEINE Z. BORDALLO
Member of Congress

Appendix C

Resolution

Consolidated Commission on Utilities

(Forthcoming)

Appendix D

Memorandum of Understanding

GWA-GPA MOU relative to Smart Grid Network Usage

July 9, 2015

GUAM WATERWORKS AUTHORITY
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, Guam 96913

MEMORANDUM

Guam Waterworks Authority
GM's Office
Received By: Silvia B. Leo
Date: 7/9/15
Time: 2:45 pm

Date: July 9, 2015

To: Samuel Taylor, Acting Interim General Manager
Guam Waterworks Authority

John M. Benavente, Interim General Manager
Guam Power Authority

From: Thomas F. Cruz, P.E., Chief Engineer, GWA

Cc: Mark Miller, Interim General Manager, GWA
Greg Cruz, Chief Financial Officer, GWA
Victor Torres, IT Manager, GWA
Barbara Cruz, P.E., Senior Engineer Supervisor, GWA

GUAM WATERWORKS AUTHORITY
BUDGET OFFICE
JOCEPHINE D. EVANGELISTA, PMBA
BUDGET OFFICER
ACTING MA IV
DATE: 07.10.15 TIME 4:57 PM

Subject: GWA - GPA MOU relative to Smart Grid Network Usage

Engineering requests your approval for GWA to enter into an agreement with GPA to allow GWA to have joint use of GPA's Smart Grid Network for GWA SCADA system, Standby Generator Control, AMI, CCTV and other future applications.

A MOU agreement between GPA and GWA, re-executed on June 2009, covers any type of work to be performed by GWA for GPA or vice versa, and remains in effect indefinitely. Enclosed are the specific terms and conditions relating to the GWA-GPA consolidated usage of the Smart Grid Network for your review and approval.

GWA's Estimated Budget Amount:

Estimated budget amount for GWA to carry out this agreement is provided in the table below. The estimated budget is based on estimated costs provided in the GWA SCADA Master Plan.

However, the estimated budget only includes GWA SCADA System and Standby Generator Control. The estimated budget for other applications is not available at this time.

PHASE	BUDGET AMOUNT
Phase A-1	$ 200,000
Phase A-2	347,000
Phase A-3	347,000
Phase B	332,000
Phase C	35,100
TOTAL	1,261,100

GWA FINANCE & ACCOUNTING ADMINISTRATIVE OFFICE
RECEIVED BY:
JUL 10 2015
BY:

GWA is only ready to certify funding for Phase A-1 in the amount of $200,000 using 2013 Bond Funds under CIP EE 09-08. Other requests will follow when funding is available.

Source of Funds:

Source of funds for Phase A-1 will be 2013 Bond Funds under CIP EE 09-08 in the amount of $200,000.

Recommend Approval by:

Thomas F. Cruz, P.E. Chief Engineer, GWA — Date: 7/9/15

Budget Review:

Greg Cruz, Chief Financial Officer, GWA — Date: 7.20.15

Approved by:

Samuel Taylor, Acting Interim General Manager, GWA — Date: 7/10/15

John M. Benavente, Interim General Manager, ~~GWA~~ GPA — Date: 7/23/15

Attachments:
1. Memorandum of Understanding between the Guam Waterworks Authority and the Guam Power Authority for Services Rendered, June 23, 2009
2. Terms and Conditions |Relative to Joint Usage of the Smart Grid Communications and Network Infrastructure