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

GUAM WATERWORKS AUTHORITY WORK SESSION
CCU Conference Room
4:30 p.m., Tues., Sept. 18, 2018

***AMENDED AGENDA**

1. **ISSUES FOR DECISION**
   - 1.1 **Relative to Approval of the Talofofo Sewer Improvement Project / Resolution No. 50-FY2018**
   - 1.2 **Relative to Approval of the Contract Extension to the Well Rehabilitation and New Well Design with GHD, Inc. / Resolution No. 51-FY2018**
   - 1.3 **Relative to Approval of the Change Order for the Baza Gardens Wastewater Cross-Island Pumping and Conveyance Phase I and II Contract / Resolution No. 52-FY2018**

2. **GM REPORT**
   - 2.1 **GM Summary**

3. **ISSUES FOR DISCUSSION**
   - *3.1 **Relative to the Write-off of Guam Waterworks Authority Receivables Determined to be Uncollectible**

4. **DIVISION REPORTS**
   - 4.1 **Communications**
   - 4.2 **Compliance & Safety**
   - 4.3 **Customer Service**
   - 4.4 **Engineering**
   - 4.5 **Finance**
   - 4.6 **Operations**

5. **ANNOUNCEMENTS**
   - 5.1 **Next CCU Meetings: GPA WS 9/20/18; CCU Meeting: 9/25/18**

6. **ADJOURNMENT**

2018 SEP 18 PM 4:53

Vice Speaker Therese M. Terlaje
34GL-18-2326
SEP 18 2018
Time: 4:21 pm
Received by:

2326

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6. **ADJOURNMENT**

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. 50-FY2018
Relative to Contract Approval for the Talofofo Sewer Improvements Project

What is the project's objective and is it necessary and urgent?
The objective of the project is to provide new sewer pump stations and associated piping improvements to service an area of gravity sewer piping which was never properly connected to GWA's wastewater system. In doing so, GWA would eliminate the need to provide both contractor and in-house pumper trucks, other equipment and manpower, three to five times per week just to remove wastewater from a portion of the collection system for which complete the installation of necessary sewer pumping stations did not occur. For decades GWA has had to continue this pumping activity, which is highly inefficient and costly to all sewer rate payers. The construction of the sewer pump stations will allow for more adjacent lots to connect onto the existing gravity system as well as improve the operations of the collection system in Talofofo.

Where is the location?
The new SPS will be located on Chalan Kanton Ladera Street, Leonardo Tenorio Street, E. Johnny S. Taitague Street, and Chalan Ayuyu in the village of Talofofo.

How much will it cost?
The total lowest bid proposal submitted was Two Million Four Hundred Eleven Thousand Four Hundred Eighteen Dollars ($2,411,418.00). GWA management further seeks on top of the total bid proposal a ten percent (10%) contingency of Two Hundred Forty-One Thousand One Hundred Forty-One Dollars and Eighty Cents ($241,141.80), to bring the total authorized funding amount to Two Million Six Hundred Fifty-Two Thousand Five Hundred Fifty-Nine Dollars and Eighty Cents ($2,652,559.80).

When will it be completed?
The contract period is 450 calendar days from NTP thus the completion of the project is potentially February 2020.

What is the funding source?
Funding for this project will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds and SDC funds applicable to this project.

The RFP/BID responses (if applicable):
Nine (9) companies picked up bid packages. Four (4) bids were submitted August 22, 2018.

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. 50-FY2018

RELATIVE TO CONTRACT APPROVAL FOR THE TALOFOFO SEWER IMPROVEMENT PROJECT; S16-004-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 USEPA, under the State Revolving Fund (SRF) program, to make improvements to the GWA wastewater collection system; and

WHEREAS, the development of infrastructure made by the Government of Guam in the Village of Talofofo in the 1990's included the installation of roads, water and sewer pipelines, and power lines; and

WHEREAS, funds during the 1990s Talofofo infrastructure improvements were depleted prior to the construction of five wastewater pump stations; and

WHEREAS, GWA has been required to provide both contracted and in-house pumper truck service, other equipment and manpower, three to five times per week over the past twenty-plus years, which has been determined to be inefficient and costly to pump-out the accumulated wastewater and transport it to the closest receiving facility; and

DRAFT

WHEREAS, the frequent operation of mobile wastewater pumping and hauling, and the occasional spilling of wastewater, is an unacceptable nuisance and potential health risk to the residents of Talofofo, and an excessive operational expense for GWA; and

WHEREAS, Pump stations will enable the future construction of homes on the numerous vacant lots in the village to be connected to the sewer system; and

WHEREAS, USEPA has granted SRF funding to construct five (5) wastewater pump stations, which will eliminate the potential health risks and costs associated with mobile pumping and hauling; and

WHEREAS, in April 2016 GWA issued an RFP to procure engineering design services, and in July 2016, CCU resolution 50-FY2016 authorized GWA to enter into a contract with EMPSCO Engineering Consultants to design five new pump stations; and

WHEREAS, in August 2016, GWA executed a contract with EMPSCO as the Design Engineer to provide plans and specifications in order to offer for bidding the construction of the five pump stations; and

WHEREAS, on June 19, 2018, GWA advertised the Invitation to Bid (IFB-07-ENG-2018) for the Talofofo Sewer Improvement project soliciting bids from experienced and responsive contractors to perform the work found in the plans and specifications; and

WHEREAS, on August 22, 2018, GWA received four bids (SEE EXHIBIT A – Abstract of Bids) before the bid proposal deadline; and

WHEREAS, the project Design Engineer, in conjunction with GWA, analyzed the bid proposals and determined that Giant Construction Corporation submitted the lowest responsive and responsible bid and met all the bid requirements set forth by GWA (SEE EXHIBIT B – Evaluation of Bids); and

DRAFT

WHEREAS, GWA discovered a mathematical error in Giant Construction Corporation's bid proposal in the amount of Forty-Seven Thousand Seven Hundred Dollars ($47,700.00), which results in a corrected bid amount of Two Million Four Hundred Eleven Thousand Four Hundred Eighteen Dollars ($2,411,418.00), as confirmed by Giant Construction Corporation (SEE EXHIBIT C –Bid Confirmation); and

WHEREAS, GWA seeks CCU approval of the total bid proposal in the amount of Two Million Four Hundred Eleven Thousand Four Hundred Eighteen Dollars ($2,411,418.00); and

WHEREAS, GWA further seeks CCU approval of the total bid proposal in the amount of Two Million Four Hundred Eleven Thousand Four Hundred Eighteen Dollars ($2,411,418.00) plus a ten percent (10%) contingency of Two Hundred Forty-One Thousand One Hundred Forty-One Dollars and Eighty Cents ($241,141.80), to bring the total authorized funding amount to Two Million Six Hundred Fifty-Two Thousand Five Hundred Fifty-Nine Dollars and Eighty Cents ($2,652,559.80); and

WHEREAS, funding for this project will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds and/or SDC funds applicable to this 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 and 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).
3. The CCU hereby authorizes GWA to accept the confirmed bid proposal from Giant Construction Corporation (EXHIBIT C).
4. The CCU further authorizes GWA to enter into a contract with Giant Construction Corporation in the amount of Two Million Four Hundred Eleven Thousand Four Hundred Eighteen Dollars ($2,411,418.00).
5. The CCU further authorizes the funding total of Two Million Four Hundred Eleven Thousand Four Hundred Eighteen Dollars ($2,411,418.00), plus a ten

percent (10%) contingency of Two Hundred Forty-One Thousand One Hundred Forty-One Dollars and Eighty Cents ($241,141.80), for a total authorized funding amount of Two Million Six Hundred Fifty-Two Thousand Five Hundred Fifty-Nine Dollars and Eighty Cents ($2,652,559.80).

6. The CCU further authorizes the funding for this project will be from the USEPA State Revolving Fund and, if necessary, GWA Bond funds and/or SDC funds applicable to this project.

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

DULY AND REGULARLY ADOPTED, this 25th day of September, 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: _____

///

ORIGINAL

GUAM WATERWORKS AUTHORITY
ABSTRACT OF BIDS

Project Name: **TALOFOFO SEWER IMPROVEMENT**

Bid Opening Date: August 22, 2018
Time: 3:00 p.m.

Project Number: S16-004-EPA IFB NO.: IFB-07-ENG-2018

	Qualified Bidders Name	Section A-5 Bid Bond	CERTIFICATIONS								Addendum					Base Bid Amount
			Qualifications Statement	Non-Collusion Affidavit	EEO Certification	Non-Segregated Facilities	Sex Offender Certification	Wage & Benefit Determination	Major Shareholders Affidavit	Special Instructions to Bidders	1	2	3	4	5	
1.	MEGA UNITED CORPORATION	First Nat Insurance Company 15% of total bid amount	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$ 2,689,358.00
2.	KORANDO CORPORATION	Lexson Insurance Company 15% of total Bid Amount	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$ 3,293,891.00
3.	PROPACIFIC BUILDER CORPORATION	No Bid Submitted														
4.	INFRATECH INTERNATIONAL, LLC	No Bid Submitted														
5.	CORE TECH INTERNATIONAL CORP.	No Bid Submitted														
6.	GIANT CONSTRUCTION CORPORATION	Pacific Indemnity Ins. Comp. 15% of Ref. Bid	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$ 2,363,718.00
7.	BME & SONS INC.	Fidelity and Deposit Corp of Maryland 15% Acc of Bid	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	$ 3,852,546.93
8.	ORION CONSTRUCTION CORPORATION	No Bid Submitted														
9.	IAN CORPORATION	No Bid Submitted														
	GWA Estimate															$ 9,569,053.24

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

Tabulated By:
RYCHA CARINO
(Name and Signature)

GWA Procurement Representative:
CHUCK FINCHILL
(Name and Signature)
V. Heacock

Witnesses:
Mega United Corp.
BME & Sons. Inc.
EMPSCO
JACK Kim (KORANDO)
JACOB MILLER

GWA Work Session - September 18, 2018 - ISSUES FOR DECISION

Exhibit A (1 of 1)

7

ENGINEERING MANAGEMENT & PLANNING SERVICES CORPORATION
1998 ARMY DRIVE, ROUTE 16, 2/F EMPSCO BLDG., DEDEDO, GUAM 96929 □ PO BOX 21794 GMF, BARRIGADA, GU 96921 □ TEL (671) 6384716 /6385716 □ FAX (671) 6382136

EXHIBIT B (1 of 20)

EVALUATION OF BID

Project name: Talofofo Sewer Improvement Date: September 6, 2018
Project Number: S16-004-EPA
IFB NO. : ifb-07-ENG-2018

Purpose of Bid evaluation

The main purpose of this bid evaluation is to determine the lowest substantially responsive bid among the bids submitted. A tabulation of bid amount of all qualified bidders is created to determine the lowest substantially responsive bidder. See Next page for tabulation.

Bid opening

1. Bid opening was held on August 22, 2018, 3:00 PM at GWA Gayu Conference room, Room 201.
2. All requirements of the bid have been submitted by all Bidders.
3. All bid submissions by all Bidders include all the required bidding forms submitted as part of the bid package.

Bid evaluation:

1. Best Evaluated Bid: Key finding pertained to the lowest substantially responsive evaluated bidder.
   Lowest Bidders = GIANT CONSTRUCTION CORPORATION
   Base Bid amount = $ 2,363,718.00

2. Engineering Estimate (GWA Estimate) = $ 2,569,053.24

3. Calculated discrepancy by GIANT CONSTRUCTION CORPORATION
   a. Base Bid amount = $ 2,363,718.00
   b. Correct base Bid amount = $ 2,411,418.00 (based on Total amount of Base bid, Refer to Tabulation)
   c. Difference = $ 47,700.00
   d. 0.65% below the Engineering Estimate

4. Despite discrepancy, the correct base bid amount by GIANT CONSTRUCTION CORPORATION is **LOWER THAN** the bid amount submitted by MEGA UNITED CORPORATION.

Exhibit B (2 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
I. BASE BID - CHALAN KANTON LADERA STREET STATION 1									
	General Requirements								
1.	Mobilization and Demobilization to include @ 8-in Pneumatic Pipe Plugs w 3/16-in eyebolt for removal and ¼-in threaded inflation valve; Cherne Inc. Part 041386 or equal	1	LS	$ 20,157.43	$ 21,854.46	$ 22,800.00	$ 20,000.00	$ 15,185.00	
2.	Insurance and Bonds	1	LS	$ 9,731.86	$ 36,909.17	$ 28,800.00	$ 23,000.00	$ 26,060.00	
3.	Permits	1	LS	$ 3,041.15	$ 13,659.04	$ 4,300.00	$ 10,000.00	$ 10,000.00	
	Civil and Structural Works								
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	178	SY	$ 4,392.83	$ 3,647.22	$ 2,670.00	$ 3,916.00	$ 3,560.00	
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete.	178	SY	$ 11,439.73	$ 26,744.50	$ 14,240.00	$ 15,842.00	$ 25,810.00	
6.	Installation of new 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals complete in place.	21	LF	$ 7,488.86	$ 15,182.37	$ 4,410.00	$ 11,550.00	$ 3,150.00	
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	780	LF	$ 42,191.11	$ 112,226.40	$ 50,700.00	$ 51,480.00	$ 117,000.00	

Exhibit B (3 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.	1	EA	$ 26,093.59	$ 11,704.05	$ 8,600.00	$ 16,000.00	$ 13,500.00	
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	$ 3,677.12	$ 7,168.46	$ 5,300.00	$ 4,500.00	$ 5,500.00	

Exhibit B (4 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	$ 12,889.60	$ 22,577.69	$ 28,000.00	$ 35,000.00	$ 8,250.00	
11.	8' x 8' Concrete masonry wall for Electrical panels including basecourse, wall footing with reinforcement, 4" thick slab on grade with welded wire fabric reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.	86	SF	$ 11,452.23	$ 7,283.34	$ 7,740.00	$ 34,400.00	$ 2,580.00	
12.	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	$ 10,713.95	$ 2,950.32	$ 3,000.00	$ 10,800.00	$ 3,000.00	
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	$ 5,154.02	$ 4,222.02	$ 5,720.00	$ 29,700.00	$ 2,200.00	
14.	24 Hours Bypass pumping	1	LS	$ 8,768.66	$ 8,536.90	$ 9,800.00	$ 12,000.00	$ 2,500.00	
15.	USEPA and GWA Project signs, complete	2	EA	$ 3,000.00	$ 11,610.18	$ 2,600.00	$ 6,000.00	$ 1,000.00	
	Mechanical and Plumbing Works								
16.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	$ 149,527.45	$ 170,799.21	$ 98,000.00	$ 110,000.00	$ 147,479.17	

Exhibit B (5 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
17.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	$ 84,636.15	$ 99,775.05	$ 56,000.00	$ 170,000.00	$ 55,100.46	
	Electrical Works								
18.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	$ 85,010.37	$ 158,163.09	$ 52,500.00	$ 55,000.00	$ 84,505.67	
	TOTAL BASE BID ITEM NO. I (Items 1 through 18)			**$ 499,366.11**	**$ 735,013.47**	**$ 405,180.00**	**$ 619,188.00**	**$ 526,380.30**	

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

Exhibit B (6 of 20)

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
II. BASE BID - LEONARDO TENORIO STREET									
	General Requirements								
1.	Mobilization and Demobilization	1	LS	$ 18,921.24	$ 13,659.04	$ 26,500.00	$ 24,000.00	$ 15,185.00	
2.	Insurance and Bonds	1	LS	$ 9,839.04	$ 39,324.69	$ 31,600.00	$ 28,000.00	$ 26,060.00	
3.	Permits	1	LS	$ 3,074.64	$ 13,659.04	$ 53,000.00	$ 12,000.00	$ 10,000.00	
	Civil and Structural Works								
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	194	SY	$ 3,908.67	$ 3,975.06	$ 2,910.00	$ 4,268.00	$ 3,880.00	
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete	194	SY	$ 12,468.02	$ 29,148.50	$ 15,520.00	$ 17,266.00	$ 28,130.00	
6.	New 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals complete in place.	32	LF	$ 8,653.82	$ 23,244.48	$ 10,560.00	$ 16,800.00	$ 4,800.00	
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	579	LF	$ 34,650.56	$ 86,629.98	$ 38,214.00	$ 38,214.00	$ 86,850.00	
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.	1	EA	$ 26,093.59	$ 12,530.88	$ 9,800.00	$ 16,000.00	$ 13,500.00	

Exhibit B (7 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	$ 3,677.12	$ 7,168.46	$ 5,300.00	$ 4,500.00	$ 5,500.00	
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	$ 12,889.60	$ 22,577.69	$ 28,000.00	$ 35,000.00	$ 8,250.00	

Exhibit B (8 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
11.	8' x 8' Concrete masonry wall for Electrical panels including basecourse, wall footing with reinforcement, 4" thick slab on grade with welded wire fabric reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.	86	SF	$ 11,452.23	$ 6,812.92	$ 7,740.00	$ 34,400.00	$ 3,010.00	
12	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	$ 10,713.95	$ 2,950.32	$ 3,000.00	$ 10,800.00	$ 3,000.00	
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	$ 5,154.02	$ 4,222.02	$ 5,720.00	$ 29,700.00	$ 2,200.00	
14.	24 Hours Bypass pumping	1	LS	$ 8,768.66	$ 6,146.57	$ 10,500.00	$ 12,000.00	$ 2,500.00	
	Mechanical and Plumbing Works								
15.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	$ 164,754.80	$ 239,816.86	$ 185,800.00	$ 125,000.00	$ 147,479.17	
16.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	$ 84,636.15	$ 104,159.60	$ 59,000.00	$ 170,000.00	$ 85,243.00	

Exhibit B (9 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
17.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	$ 85,209.79	$ 167,087.70	$ 56,200.00	$ 55,000.00	$ 94,506.00	
	TOTAL BASE BID ITEM NO. II (Items 1 through 17)			**$ 504,865.90**	**$ 783,113.81**	**$ 549,364.00**	**$ 632,948.00**	**$ 540,093.17**	Giant indicated the sum of $501,664 in his bid

Exhibit B (10 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
III. BASE BID - E. JOHNNY S. TAITAGUE STREET									
	General Requirements								
1.	Mobilization and Demobilization	1	LS	$ 19,550.09	$ 13,659.04	$ 27,400.00	$ 20,000.00	$ 15,185.00	
2.	Insurance and Bonds	1	LS	$ 10,166.04	$ 38,880.87	$ 35,000.00	$ 25,000.00	$ 26,060.00	
3.	Permits	1	LS	$ 3,176.83	$ 13,659.04	$ 5,800.00	$ 13,000.00	$ 10,000.00	
	Civil and Structural Works								
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	162	SY	$ 3,414.41	$ 3,319.38	$ 2,430.00	$ 3,564.00	$ 3,240.00	
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete	162	SY	$ 10,411.44	$ 24,340.50	$ 12,960.00	$ 14,418.00	$ 23,490.00	
6.	New 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals in place, complete in place.	60	LF	$ 10,091.15	$ 25,984.80	$ 14,400.00	$ 31,500.00	$ 9,000.00	
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	495	LF	$ 30,588.12	$ 72,299.70	$ 32,175.00	$ 32,670.00	$ 74,250.00	
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.	1	EA	$ 26,093.59	$ 12,394.29	$ 9,900.00	$ 16,000.00	$ 13,500.00	

Exhibit B (11 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	$ 3,677.12	$ 7,168.46	$ 5,300.00	$ 4,500.00	$ 5,500.00	
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	$ 12,889.60	$ 22,577.69	$ 28,000.00	$ 35,000.00	$ 8,250.00	
11.	8' x 8' Concrete masonry wall for Electrical panels including basecourse, wall footing with reinforcement, 4" thick slab on grade with welded wire fabric reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.	86	SF	$ 11,452.23	$ 6,812.92	$ 7,740.00	$ 34,400.00	$ 3,010.00	
12.	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	$ 10,713.95	$ 2,950.32	$ 3,000.00	$ 10,800.00	$ 3,000.00	
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	$ 5,154.02	$ 4,222.02	$ 5,720.00	$ 29,700.00	$ 2,200.00	
14.	24 Hours Bypass pumping	1	LS	$ 8,768.66	$ 6,146.57	$ 10,600.00	$ 12,000.00	$ 2,500.00	
	Mechanical and Plumbing Works								

Exhibit B (12 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
15.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	$ 187,719.42	$ 251,699.68	$ 208,700.00	$ 110,000.00	$ 147,479.17	
16.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	$ 84,636.15	$ 104,364.50	$ 72,000.00	$ 170,000.00	$ 85,243.00	
	Electrical Works								
17.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	$ 83,142.30	$ 163,797.72	$ 58,700.00	$ 55,000.00	$ 94,506.00	
	TOTAL BASE BID ITEM NO. III, Items 1 through 17			**$ 521,645.12**	**$ 774,277.50**	**$ 539,825.00**	**$ 617,552.00**	**$ 526,413.17**	BME indicated a total of $774,477,50 in his bid.

Exhibit B (13 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
IV. BASE BID - CHALAN KANTON LADERA STREET STATION 2									
	General Requirements								
1.	Mobilization and Demobilization	1	LS	$ 16,571.86	$ 13,659.04	$ 21,800.00	$ 24,000.00	$ 15,185.00	
2.	Insurance and Bonds	1	LS	$ 8,617.37	$ 30,377.19	$ 25,000.00	$ 28,000.00	$ 26,060.00	
3.	Permits	1	LS	$ 2,692.88	$ 13,659.04	$ 3,900.00	$ 10,000.00	$ 10,000.00	
	Civil and Structural Works								
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	42	SY	$ 828.81	$ 859.74	$ 714.00	$ 924.00	$ 840.00	BME indicated a sum of $860.58 in his bid
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete	42	SY	$ 2,699.26	$ 6,310.50	$ 3,570.00	$ 3,738.00	$ 6,090.00	
6.	New 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals complete in place.	63	LF	$ 7,213.57	$ 22,780.80	$ 11,970.00	$ 33,075.00	$ 9,450.00	
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning/identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	63	LF	$ 5,098.99	$ 18,018.00	$ 4,410.00	$ 4,158.00	$ 9,450.00	
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.	1	EA	$ 26,093.59	$ 12,394.29	$ 9,900.00	$ 16,000.00	$ 13,500.00	

Exhibit B (14 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	$ 3,677.12	$ 7,102.90	$ 5,300.00	$ 4,500.00	$ 5,500.00	
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	$ 12,889.60	$ 22,577.69	$ 28,000.00	$ 35,000.00	$ 8,250.00	

Exhibit B (15 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
11.	8' x 8' Concrete masonry wall for Electrical panels including basecourse, wall footing with reinforcement, 4" thick slab on grade with welded wire fabric reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.	86	SF	$ 11,452.23	$ 6,812.92	$ 7,740.00	$ 34,400.00	$ 3,010.00	
12.	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	$ 10,713.95	$ 2,950.32	$ 3,000.00	$ 10,800.00	$ 3,000.00	
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	$ 5,154.02	$ 4,222.02	$ 5,720.00	$ 29,700.00	$ 2,200.00	
14	24 Hours Bypass pumping	1	LS	$ 8,768.66	$ 6,146.57	$ 9,800.00	$ 12,000.00	$ 2,500.00	
	Mechanical and Plumbing Works								
15.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	$ 151,350.14	$ 169,177.38	$ 99,700.00	$ 120,000.00	$ 147,479.17	
16.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	$ 84,636.15	$ 100,048.24	$ 54,900.00	$ 170,000.00	$ 55,100.46	
	Electrical Works								

Exhibit B (16 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
17.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	$ 83,720.43	$ 167,835.48	$ 53,200.00	$ 65,000.00	$ 84,505.00	
	TOTAL BASE BID ITEM NO. IV (Items 1 through 17)			**$ 442,178.63**	**$ 604,932.12**	**$ 348,624.00**	**$ 601,295.00**	**$ 402,119.63**	

Exhibit B (17 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
V. BASE BID - CHALAN AYUYU									
	General Requirements								
1.	Mobilization and Demobilization	1	LS	$ 20,102.97	$ 13,659.04	$ 29,800.00	$ 24,000.00	$ 15,185.00	
2.	Insurance and Bonds	1	LS	$ 10,453.55	$ 43,323.71	$ 34,900.00	$ 28,000.00	$ 26,060.00	
3.	Permits	1	LS	$ 3,266.67	$ 13,659.04	$ 6,300.00	$ 10,000.00	$ 10,000.00	
	Civil and Structural Works								
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	330	SY	$ 6,973.40	$ 6,761.70	$ 4,950.00	$ 7,260.00	$ 6,600.00	
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete	330	SY	$ 21,208.49	$ 49,582.50	$ 26,400.00	$ 29,370.00	$ 47,850.00	
6.	New 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals complete in place.	56	LF	$ 11,484.07	$ 39,763.92	$ 10,920.00	$ 29,400.00	$ 8,400.00	
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	1083	LF	$ 58,696.10	$ 166,987.77	$ 70,395.00	$ 71,478.00	$ 162,450.00	
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.	1	EA	$ 26,093.59	$ 12,394.29	$ 9,900.00	$ 16,000.00	$ 13,500.00	

Exhibit B (18 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	$ 3,677.12	$ 7,102.90	$ 5,300.00	$ 4,500.00	$ 5,500.00	
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	$ 12,889.60	$ 22,577.69	$ 28,000.00	$ 35,000.00	$ 8,250.00	
11.	8' x 8' Concrete masonry wall for electrical panels including basecourse, wall footing with reinforcement, 4" thick slab on grade with welded wire fabric reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.	86	SF	$ 11,452.23	$ 6,812.92	$ 7,740.00	$ 34,400.00	$ 3,010.00	
12.	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	$ 10,713.95	$ 2,950.32	$ 3,000.00	$ 10,800.00	$ 3,000.00	
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	$ 5,154.02	$ 4,222.02	$ 5,720.00	$ 29,700.00	$ 2,200.00	
14.	24 Hours Bypass pumping	1	LS	$ 8,768.66	$ 6,146.57	$ 9,800.00	$ 12,000.00	$ 2,500.00	
	Mechanical and Plumbing Works								
15.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	$ 153,163.96	$ 174,898.97	$ 108,500.00	$ 110,000.00	$ 147,479.17	

Exhibit B (19 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
16.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	$ 84,636.14	$ 100,048.24	$ 56,000.00	$ 170,000.00	$ 55,100.46	
	Electrical Works								
17.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	$ 87,662.96	$ 172,948.55	$ 52,200.00	$ 55,000.00	$ 84,505.00	
	TOTAL BASE BID ITEM NO. V (Items 1 through 17)			**$ 536,397.48**	**$ 843,840.15**	**$ 469,825.00**	**$ 676,908.00**	**$ 601,589.63**	BME indicated total of $ 845,640.15 in his bid

Exhibit B (20 of 20)

TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA
BID PRICE COMPARISION

				ENG'S ESTIMATE	CONTRACTORS				
No.	Description	Qty	Unit	GWA Estimate	BME & Sons	Giant Construction Corporation	Korando Corporation	Mega United Corporation	Remarks/ Comments
VI. BASE BID - GENERATOR SETS									
1.	Towable 60kW diesel Generator Set; with single point lifting eye and four-point tie down system for detaching the generator set and fuel tank from the trailer.	2	EA	$ 64,600.00	$ 109,369.04	$ 98,600.00	$ 96,000.00	$ 92,332.10	
	TOTAL BASE BID ITEM NO. VI.			**$ 64,600.00**	**$ 109,369.04**	**$ 98,600.00**	**$ 96,000.00**	**$ 92,332.10**	
	GRAND TOTAL			**$ 2,569,053.24**	**$ 3,850,546.09**	**$ 2,411,418.00**	**$ 3,243,891.00**	**$ 2,688,928.00**	GIANT indicate a total of $2,363,718 in his bid

Exhibit C (1 of 18)

GIANT CONSTRUCTION CORP.
P.O. Box 9578 Tamuning, Guam 96931
Tel.: (671) 649-6472 • Fax.: (671) 646-3693
E-mail: giantconst@gmail.com

Sep. 04, 2018

Guam Waterworks Authority
Mr. Miguel Bordallio
General manager
P.O. Box 3010
Hagatna, Guam 96913

Attention : Mr. Thomas Cruz
Chief Engineer

Project : Talofofo Sewer Improvement
Project No. S16-004-EPA

Subject : Bid Confirmation

Dear Sir or Madam

Hafa Adai! This is to confirm our bid submitted on 3;00 PM Aug. 22, 2018. The bid amount is $2,411,418.00 for the construction of various area of lift Station with valve pit and Sewer manhole, 4" forcemain, and 8" gravity sewer line with connection.
We were the lowest bidder of above project bidding.
We are waiting for your notice of award.

Your notice of award and proceed is highly appreciated.

Sincerely yours,

Chung, In Chul
Vice-Preisdent

Received by:
Jbensan
9-5-18

Exhibit C (2 of 18)

Addendum No. 4

BID FORM

ORIGINAL

ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

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

1.02 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.

ARTICLE 2 - BIDDER'S ACKNOWLEDGMENTS

2.01 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.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. 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
Addendum No. 1	July 05, 2018
2	July 18, 2018
3	July 24, 2018
4	Aug. 07, 2018
5	Aug. 21, 2018

B. 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.

C. 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.

D. 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.

E. 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.

F. 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.

ARTICLE 4 - BIDDER'S CERTIFICATIONS

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 any thing 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.

Exhibit C (4 of 18)

ARTICLE 5 - BASIS OF BID

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

Exhibit C (5 of 18)

Addendum No. 4

GUAM WATERWORKS AUTHORITY
TALOFOFO SEWER IMPROVEMENT
GWA Project No. S16-004-EPA

BASE BID

Base Bid Description: The base bid item consists but not specifically limited to, installation of new lift station located at Chalan Kanton Ladera Station 1, Leonardo Tenorio Street, and Johnny Taitague Street; complete with wet well, vault, covers, pumps, valves, gravity sewerlines and manholes and new force mains to a new terminal manhole, rehabilitation of existing sewer system complete with appurtenances, installation of new secured fence enclosure with gates at each lift stations, power supply connection to the nearest GPA utility pole and provision to allow quick connect of portable standby power generator with manual switching control during power outages, two towable Generator set and providing temporary bypass and traffic control as required for the improvement of sewer system at Talofofo village.

I. BASE BID - CHALAN KANTON LADERA STREET STATION 1

Pay Item	Description	BASE BID ITEM NO. I			
General Requirements		**Qty.**	**Unit**	**Unit Cost**	**Sub-Total**
1.	Mobilization and Demobilization	1	LS	22,800.00	22,800.00
2.	Insurance and Bonds	1	LS	28,800.00	28,800.00
3.	Permits	1	LS	4,300.00	4,300.00
Civil and Structural Works					
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	178	SY	15.00	2,670.00
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete.	178	SY	80.00	14,240.00
6.	Installation of new 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals complete in place.	21	LF	210.00	4,410.00
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	780	LF	65.00	50,700.00
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary	1	EA	8,600.00	8,600.00

Exhibit C (6 of 18)

Addendum No. 4

	erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.				
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	$5,300.00	$5,300.00
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	28,000.00	28,000.00
11.	8' x 8' Concrete masonry wall for Electrical panels including basecourse, wall footing with reinforcement, 4" thick slab on grade with welded wire fabric reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.	86	SF	90.00	7,740.00
12.	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	250.00	3,000.00
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	$20.00	$720.00
14.	24 Hours Bypass pumping	1	LS	9,800.00	9,800.00
15.	USEPA and GWA Project signs, complete	2	EA	1,300.00	2,600.00
	Mechanical & Plumbing Works				
16.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	98,000.00	98,000.00
17.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	28,000.00	$6,000.00

Exhibit C (7 of 18) Addendum No. 4

	Electrical works				
18.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	$2,500.00	$2,500.00
	TOTAL BASE BID ITEM NO. I (Items 1 through 18)			$	401,180.00

Exhibit C (8 of 18)

Addendum No. 4

II. BASE BID - LEONARDO TENORIO STREET

Pay Item	Description	BASE BID ITEM NO. II			
General Requirements		**Qty.**	**Unit**	**Unit Cost**	**Sub-Total**
1.	Mobilization and Demobilization	1	LS	26,500.00	26,500.00
2.	Insurance and Bonds	1	LS	31,600.00	31,600.00
3.	Permits	1	LS	3,000.00	3,000.00
Civil and Structural Works					
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	194	SY	15.00	2,910.00
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete	194	SY	80.00	15,520.00
6.	New 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals complete in place.	32	LF	330.00	10,560.00
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	579	LF	66.00	38,214.00
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.	1	EA	9,800.00	9,800.00
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	5,300.00	5,300.00
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	28,000.00	28,000.00
11.	8' x 8' Concrete masonry wall for Electrical panels including basecourse, wall footing with reinforcement, 4" thick slab on grade with welded wire fabric	86	SF	90.00	7,740.00

Exhibit C (9 of 18)

	reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.				
12.	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	250.00	3,000.00
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	520.00	5,720.00
14.	24 Hours Bypass pumping	1	LS	10,500.00	10,500.00
	Mechanical & Plumbing Works				
15.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	185,800.00	185,800.00
16.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	29,500.00	59,000.00
17.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	56,200.00	56,200.00
	TOTAL BASE BID ITEM NO. II (Items 1 through 17)			$	549,364.00

Exhibit C (10 of 18)

III. BASE BID - E. JOHNNY S. TAITAGUE STREET

Pay Item	Description	BASE BID ITEM NO. III			
General Requirements		**Qty.**	**Unit**	**Unit Cost**	**Sub-Total**
1.	Mobilization and Demobilization	1	LS	27,400.00	27,400.00
2.	Insurance and Bonds	1	LS	35,000.00	35,000.00
3.	Permits	1	LS	5,800.00	5,800.00
Civil and Structural Works					
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	162	SY	15.00	2,430.00
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete	162	SY	80.00	12,960.00
6.	New 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals in place, complete in place.	60	LF	240.00	14,400.00
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	495	LF	65.00	32,175.00
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.	1	EA	9,900.00	9,900.00
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	5,300.00	5,300.00
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	28,000.00	28,000.00
11.	8' x 8' Concrete masonry wall for Electrical panels including basecourse, wall footing with reinforcement,	86	SF	80.00	7,740.00

Exhibit C (11 of 18)

	4" thick slab on grade with welded wire fabric reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.				
12.	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	250.00	3,000.00
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	520.00	5,720.00
14.	24 Hours Bypass pumping	1	LS	10,600.00	10,600.00
	Mechanical & Plumbing Works				
15.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	208,700.00	208,700.00
16.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	36,000.00	72,000.00
	Electrical works				
17.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	58,700.00	58,700.00
	TOTAL BASE BID ITEM NO. III, Items 1 through 17			$	539,825.00

Exhibit C (12 of 18) Addendum No. 4

IV. BASE BID - CHALAN KANTON LADERA STREET STATION 2

Pay Item	Description	ADDITIVE BID ITEM NO. I			
General Requirements		**Qty.**	**Unit**	**Unit Cost**	**Sub-Total**
1.	Mobilization and Demobilization	1	LS	21,800.00	21,800.00
2.	Insurance and Bonds	1	LS	25,000.00	25,000.00
3.	Permits	1	LS	3,900.00	3,900.00
Civil and Structural Works					
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	42	SY	17.00	714.00
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete	42	SY	85.00	3,570.00
6.	New 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning/ identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals complete in place.	63	LF	190.00	11,970.00
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning/identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	63	LF	70.00	4,410.00
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.	1	EA	9,900.00	9,900.00
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	5,300.00	5,300.00
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	28,000.00	28,000.00

Exhibit C (13 of 18)

Addendum No. 4

11.	8' x 8' Concrete masonry wall for Electrical panels including basecourse, wall footing with reinforcement, 4" thick slab on grade with welded wire fabric reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.	86	SF	90.00	7,740.00
12.	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	250.00	3,000.00
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	$20.00	$1,720.00
14.	24 Hours Bypass pumping	1	LS	9,800.00	9,800.00
	Mechanical & Plumbing Works				
15.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	99,700.00	99,700.00
16.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	27,450.00	$4,900.00
	Electrical Works				
17.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	$3,200.00	$3,200.00
	TOTAL BASE BID ITEM NO. IV (Items 1 through 17)			**$**	348,624.00

Exhibit C (14 of 18)

V. BASE BID - CHALAN AYUYU

Pay Item	Description	ADDITIVE BID ITEM NO. II			
General Requirements		**Qty.**	**Unit**	**Unit Cost**	**Sub-Total**
1.	Mobilization and Demobilization	1	LS	29,800.00	29,800.00
2.	Insurance and Bonds	1	LS	34,900.00	34,900.00
3.	Permits	1	LS	6,300.00	6,300.00
Civil and Structural Works					
4.	Restoration of Asphalt Concrete Pavement including removal and disposal of existing asphalt.	330	SY	15.00	4,950.00
5.	3" Thick Asphaltic concrete trench patch paving with CSS-1h prime coat, complete	330	SY	80.00	26,400.00
6.	New 8" diameter polyvinyl chloride (PVC) gravity main pipe including excavation, sand bedding material, backfill, basecourse material and compaction, fittings, warning identification tape, cleaning, connection to existing manhole, hydrostatic testing, disposal and all incidentals complete in place.	56	LF	195.00	10,920.00
7.	New 4" diameter polyvinyl chloride (PVC) forcemain pipe including excavation, sand bedding material, flowable fill, basecourse material and compaction, fittings, warning identification tape, cleaning, connection to existing manholes, hydrostatic testing and all incidentals complete in place.	1083	LF	65.00	70,395.00
8.	Standard Sanitary Sewer Manhole with 30" manhole frame and cover, precast concrete, including reinforced concrete base, precast concrete riser and cone, flexible pipe seals and connectors, grade adjustment rings, frame and cover, epoxy coating, channeling, testing, temporary erosion control measures, traffic control work, incidental and all necessary labor, material and equipment, complete in place.	1	EA	9,900.00	9,900.00
9.	2" Combination Air Release Valve including 24" diameter reinforced concrete or polyvinyl chloride (PVC) C-900 stand pipe, 4' depth, concrete footing base, 3/4" gravel, manhole ring and cover, concrete collar and all incidental complete in place.	1	EA	5,300.00	5,300.00
10.	Concrete valve box, 7ft x 7ft x 4ft interior dimension including basecourse, backfill and compaction, valve box metal frame and cover and all necessary materials, labor and equipment, complete in place.	1	EA	28,000.00	28,000.00
11.	8' x 8' Concrete masonry wall for electrical panels including basecourse, wall footing with reinforcement,	86	SF	90.00	7,740.00

Exhibit C (15 of 18)

Addendum No. 4

	4" thick slab on grade with welded wire fabric reinforcing, concrete bond beam and all necessary materials, labor and equipment, complete in place.				
12.	New 8' high chainlink fence and double gate including barbed wire, barbed wire extension arm, concrete foundation and all necessary materials, labor and equipment, complete in place.	12	LF	250.00	3,000.00
13.	Wet well concrete collar including basecourse and compaction, reinforcement, concrete, forms and incidental complete in place.	11	SY	320.00	3,720.00
14.	24 Hours Bypass pumping	1	LS	9,800.00	9,800.00
	Mechanical & Plumbing Works				
15.	Pre-engineered package type lift station including but not specifically limited to fiberglass wet well, stainless steel guide bars, stainless steel upper guide bar bracket, stainless steel cable holder hook, ladder, integral safe hatch aluminum access cover, easy lift pump retrieval system, vent pipe and all incidental required to complete the work.	1	SET	108,500.00	108,500.00
16.	New submersible pumps including but not specifically limited to discharge pipe and fittings, check valves, gate valves, start-up testing, training and all incidental required to complete the work.	2	SET	28,000.00	56,000.00
	Electrical Works				
17.	Electrical works including new conduits, boxes, wire gutters, wires, cables and devices, electrical panel, pump controller and software, cellular autodialer, level float switches, level transducer, motion-sensor exterior light, quick connect outlets, manual transfer switch and all incidental required to complete the work.	1	LS	52,200.00	52,200.00
	TOTAL BASE BID ITEM NO. V (Items 1 through 17)			$	463,825.00

Exhibit C (16 of 18)

VI. BASE BID - GENERATOR SETS

Pay Item	Description	BASE BID ITEM NO. V			
		Qty.	Unit	Unit Cost	Sub-Total
1.	Towable 60kW diesel Generator Set; with single point lifting eye and four-point tie down system for detaching the generator set and fuel tank from the trailer.	2	EA	49,300.00	98,600.00
	TOTAL BASE BID ITEM NO. VI				$ 98,600.00

TOTAL BASE BID AMOUNT (Bid items I- VI) $ 2,411,418.00

(If the Total Base Bid is within the amount of funds available, then the award will be made to the responsive and responsible bidder submitting the lowest Base Bid. In the event the lowest responsive and responsible Base Bid exceeds the available budget, GWA may reject individual Bid Items I-VI until the revised Total Base Bid Amount fits within the available budget. If additional funding is obtained after the contract is executed, any or all deleted Bid items may be restored via Change Order.)

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.

ARTICLE 6 - TIME OF COMPLETION

6.01 Bidder agrees that the furnishing of Goods and Special Services will conform to the schedule set forth in Article 5 of 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 attached to and made a condition of this Bid:

A. Required Bid security in the form of Bid Bond 15%

B. List of Proposed Major Suppliers;

C. Required Bidder Qualification Statement with Supporting Data; and

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

9.01 This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

Business address: _____

_____

Phone: _____ Facsimile: _____

E-mail address: _____ _____

Exhibit C (18 of 18)

A Partnership

Partnership Name: _____ (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: Giant Construction Corp.

State of Incorporation: Guam, USA

Type (General Business, Professional, Service, other): General Contractor

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): Chung, In Chul

Title: Vice-President

(CORPORATE SEAL)

Attest Chung, In Chul
(Signature of Corporate Secretary)

Business address: P.O. Box 9578 Tamuning Guam 96931

308 E. Harmon Industrial Park Harmon Guam 96913

Phone: 649-6472 Facsimile: 646-3693

E-mail address: giantconst@gmail.com

A Limited Liability Company (LLC)

LLC Name: _____

State in which organized: _____

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

_____

Phone: _____ Facsimile: _____

E-mail address: _____

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. 51- FY2018
Relative to Contract Extension to the Well Rehabilitation and New Wells Design with GHD, Inc.

What is the project's objective and is it necessary and urgent?
GWA management is working to execute the construction procurement for the GWA New Wells at AG-10, AG-12 and Y-8 project, for which the engineering firm GHD, Inc. was the Engineer of Record (EOR). The objective of the project is to "reopen" the design contract with GHD and extend the period of this contract for a period until such time the new wells at AG-10, AG-12 and Y-8 are complete. Having GHD on-board during the bidding process as well as the construction activities will allow for all technical questions specific to the design to be answered.

The development of AG-10, AG-12 and Y-8 Deep Wells will allow GWA to increase its production capacity reserve that may be necessary for anticipated growth from the military build-up as well as directly improve water pressure to properties close to the new well locations

Where is the location?
AG-10 is located in Dededo along Chalan Koda, AG-12 is located in Dededo along Chalan Bada and Y-8 is located in Yigo along Chalan Islas Marianas.

How much will it cost?
GWA negotiated with GHD for fees related to the additional scope or work, and GHD submitted a final fee proposal in the amount of One Hundred Seventy Thousand ($170,000.00), which will be handled on a Time and Materials basis.

When will it be completed?
GWA Management anticipates the EOR will be involved with the bidding process and will have limited involvement during the construction activities, both of which may take 18 months to complete.

What is the funding source?
The source of funding for the Change Order will be from the Bond proceeds under CIP PW PW 05-14 "New Deep Wells and Down Hard", PW 09-02 Water Wells or System Development Charge funds.

The RFP/BID responses (if applicable):
N/A.

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. 51-FY2018

RELATIVE TO CONTRACT EXTENSION TO THE WELL REHABILITATION AND NEW WELLS DESIGN WITH GHD, INC.

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 CCU approved Resolution No. 08–FY2011 on April 28, 2011 which authorized GWA Management to enter into a contract with the engineering firm Winzler and Kelly, which subsequently became the engineering firm GHD, Inc., in the amount of Nine Hundred Eighty Four Thousand Eight Hundred Fifty Seven Dollars ($984,857.00) with a not to exceed maximum of One Million Dollars ($1,000,000.00) total authorized funding amount for the engineering design services for three new wells locations and seven well rehabilitation designs (D-3, D-17, D-18, D-22, A-28, M-14 and M-9); and

WHEREAS, the original scope of work for the design contract did involve engineering services during bidding but this was removed from the contract to essentially work to close the design contract given any construction activities for the wells were deferred until after much of the Court Order projects were completed and GWA management at the time did not want to have an open-ended contract; and

WHEREAS, the original scope of work for the design contract unfortunately did not have EOR services during construction period as a line item thus GWA managements seeks

CCU approval to add such services to ensure design issues that may come up are addressed by the EOR; and

WHEREAS, in the course of the active contract with GHD, six (6) Change Orders were executed where the last Change Order required CCU and PUC approval given this Change Order resulted in the contract value being One Million Thirty-Three Thousand Three Hundred Eight Dollars ($1,033,308.00); and

WHEREAS, in 2016 GWA moved forward with the well rehabilitation construction project for production wells D-3, D-17, D-18, D-22 and M-9 for which US EPA SRF Grant were used to fund the project; and

WHEREAS, GWA management is working to execute the construction procurement for the GWA New Wells at AG-10, AG-12 and Y-8 project for which the engineering firm GHD, Inc. was the Engineer of Record (EOR); and

WHEREAS, the development of the three new wells noted will allow GWA to increase its production capacity reserve that may be necessary for anticipated growth from the military build-up as well as directly improve water pressure to properties close to the new well locations; and

WHEREAS, the EOR's involvement in the project is critical to the procurement for construction services, as well as the success of the construction activities, and is necessary to respond to all technical questions specific to the design that may be raised by perspective bidders during the bidding process or from the winning contractor during the construction contract period, and as such, GWA Management seeks CCU approval to "reopen" the design contract with GHD and extend the period of this contract until the new wells at AG-10, AG-12 and Y-8 are complete; and

WHEREAS, GWA has negotiated with GHD for additional scope of work related to bidding and construction activities as well as updating the design drawings that were originally completed in 2014; and

WHEREAS, GWA has also negotiated with GHD for fees related to the additional scope and GHD have submitted for GWA's review and approval, a proposal for One Hundred Seventy Thousand ($170,000.00) which will be handle on a Time and Materials basis (SEE EXHIBIT A); and

WHEREAS, the source of funding for the Change Order will be from the Bond proceeds under CIP PW PW 05-14 "New Deep Wells and Down Hard", PW 09-02 Water Wells or SDC; 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 development of the new production wells AG-10, AG-12 and Y-8 will allow GWA to increase its production capacity reserve that may be necessary for anticipated growth from the military build-up as well as directly improve water pressure to properties close to the new well locations
3. The CCU hereby authorizes GWA to "re-open" and extend the contract with GHD, Inc. as the Engineer of Record, for the New Well Design to ensure that all technical inquiries are addressed during the bidding period as well as during the construction period to ensure the success of the construction project.
4. The CCU hereby further authorizes the management of GWA to Change Order the contract with GHD for services related to bidding and construction activity support (Exhibit A).
5. The CCU hereby further approves the fee proposal amount of One Hundred Seventy Thousand ($170,000.00) which will be handled on a Time and Materials basis, bringing the total authorized contract amount to One Million Two Hundred Three Thousand Three Hundred Eight Dollars ($1,203,308.00).
6. GWA management is authorized to seek from the PUC its approval of Change Order No. 7 which increases the total authorized amount as noted above.

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

DULY AND REGULARLY ADOPTED, this 25th day of September, 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 5)

May 21, 2018

Mr. Miguel Bordallo, PE
General Manager
Guam Waterworks Authority
Sent Via Email

Att.: Mr. Thomas Cruz, PE, Chief Engineer

SUBJECT: Construction Phase Engineering Professional Services Proposal for GWA ISLAND-WIDE NEW WELL SITE DEVELOPMENT PROJECT; GWA Project No. PW 09-02 For Wells AG-10, AG-12 and Y-08

Dear Mr. Bordallo

GHD is pleased to submit our formal proposal for construction phase professional engineering services for the above-referenced project in accordance with Guam PEALS regulations for Construction Contract Administration (CCA) services. In general, the CCA role includes a supporting role for responding to Request for Information (RFIs), and Submittals. It also includes making periodic visits to the site by a registered engineer, architect or land surveyor or authorized representatives as the case may require, to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the contract documents. Under CCA services, GHD will not review Pay Request, prepare Change Order documents or make exhaustive or continuous on-site inspections to check the quality or quantity of the work. However, GHD will support GWA to prepare supporting documents such as drawing revisions for a change orders as requested by GWA but handling and processing of the Change Order will be by others. In addition, under the CCA role it is not intended that the engineer, architect and land surveyor be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work. The following detailed scope of work is based on the plans and specifications for this project as well as our experience on the GWA Island-Wide Well Site Rehabilitation Project with EA Science & Technology.

I. REFERENCES

1. The Drawings and Technical Specifications for Project No. PW 09-02 titled “Island-Wide Well Site Rehabilitation and New Well Site Development”, dated March 25, 2014, stamped by Jarrett Brown P.E., and attached for reference.

II. PROJECT DESCRIPTION AND UNDERSTANDING

This project involves the construction of three (3) new wells (AG-10, AG-12 and Y-08). The project generally consists of preparing the site, drilling and constructing new wells, installing wellheads and wellhead piping, miscellaneous site improvements, well buildings including generator, fuel storage, electrical and chlorinator rooms, and installing new equipment in well buildings. GHD’s role in the project is to assist in updating the plans and specifications, support GWA for RFI and submittal review, and periodic observations of installation and testing of critical items as requested by GWA or its authorized representative.

III. SCOPE OF WORK

GHD, as the Engineer of Record (EOR), will coordinate with GWA to provide limited construction phase

Exhibit A (2 of 5)

services relating to the construction of the three new (3) wells.

IV. SCOPE OF SERVICES

A. PRECONSTRUCTION PHASE TASKS

Task A1.0: Review and Update Existing Plans and Specifications. GHD will review and coordinate with GWA Engineering and Operations to update the plan set to match GWA's latest standards and re-stamp the plans and specifications with a currently licensed GHD PE on Guam. Information discovered during construction activities from the well rehab project that are considered design corrections will be undertaken at no added cost.

Task A2.0: Bid Period Support Services. GHD will assist GWA to prepare for the bid opening including but not limited to responding to RFI's, issuing addendums, attending the pre-bid conference, and preparing a bid recommendation memo as requested by GWA.

B. CONSTRUCTION PHASE TASKS

Task B1.0: Submittals & Shop Drawings. GHD will review and provide comment and approval for all process, equipment and controls submittals and other submittals and shop drawings when requested by GWA or the CM. This scope of services estimates a review of thirty (30) submittals and/or shop drawings in aggregate. A submittal or shop drawing is defined as one item on the submittal register. Submittals and shop drawings that request for modification to the design shall be reviewed and approved by GHD.

Task B2.0: Project Meetings. GHD will participate in meetings with the CM, Contractor**,** GWA, and other parties such as GEPA and DPW as necessary to address design matters that require decisions that cannot be made by GWA or the CM. This scope of services estimates attendance of five (5) project meetings by one (1) engineer. GHD's civil engineer will participate at the physical meeting location. GHD's electrical or mechanical engineer will participate in electronic (i.e., teleconference and/or WebEx) meetings. Should the need arise for the electrical and/or mechanical engineer to travel for these meetings, travel costs will be 100% reimbursable on a time and materials basis after written approval by GWA. Others shall prepare agenda and meeting minutes.

Task B3.0: Request for Information. Respond to Requests for Information (RFI) as requested by GWA or the CM for design related questions, issues, and clarifications. RFI responses will be coordinated with the CM and GWA. The scope of services estimates review of thirty (30) RFIs. RFIs that request for modification to the design shall be reviewed and approved by GHD.

Task B4.0: Site Visits. GHD will visit the well sites during construction to observe the work when requested by the CM. A site visit report will be submitted to the CM following each site visit. This scope of services estimates three (3) site visits during construction at each site.

Task B5.0: Pump Sizing and Settings. GHD will provide technical assistance to the CM and GWA with determining the final pump sizing, settings, and pump intake elevation after completion of the 72-hour pump testing; and will assist with setting final elevations of casing, screened interval and bottom of well which will occur after completion of the 72-hour pump testing but before final well completion. This task also includes making required revisions to the civil and electrical design based on the final pump selection including selection of VFD and chlorination system and pump.

Task B6.0: Prepare Final As-built Drawings. GHD will prepare the Final As-built drawings from the jobsite redline drawings maintained by the contractor. GHD will review and provide comments on the contractor's set, GWA personnel shall also provide all comments on the Contractor's redline set prior to GHD initiating the work to transfer the redlines into AutoCAD format.

Exhibit A (3 of 5)

V. PERFORMANCE SCHEDULES

Work will commence on the date specified in the Notice to Proceed for the Contractor and continue throughout the performance period specified in the Construction Contract. This scope of services assumes the project has a 365-calendar day construction schedule.

VI. SCOPE OF SERVICES ASSUMPTIONS AND EXCLUSIONS

1. Services will be performed under a Time & Materials Contract.
2. A formal partnering meeting is not required.
3. Preparation of As-Built Drawings will be based upon the drawings provided by the Construction Contractor and will be issued in AutoCAD format to GWA.
4. Preparation and maintenance of the submittal register is excluded.
5. Preparation of Operations and Maintenance (O&M) Manuals is excluded.
6. Owner will provide access to the site.
7. No project specific permitting services are included in this scope of work.
8. Special inspection services are excluded.
9. Project specific training services are excluded.
10. No Archeological survey, Section 106 Historic Preservation, biological resource monitoring, Section 7 Endangered Species Act or related work is included.
11. Warranty follow-up is not included in the scope. If required, the fee will be negotiated with GWA.
12. These EOR Services are being provided for the construction of improvements shown on the final construction plans. If additional improvements are added to the construction contract, the fees for additional EOR Services will be negotiated with GWA.
13. Our scope of work does not include resolving hazardous material investigation or testing/sampling.
14. GHD attendance is not required at the Facility Turnover Meeting.
15. Construction Phase EOR services performed will be billed based on a Time and Material basis using the agreed to hourly rates plus 10 percent markup on expenses and GRT.

Exhibit A (4 of 5)

VII. SCOPE OF SERVICES FEE

GHD estimates the cost to perform the scope of services elements outlined above is $100,000 as set forth in Exhibit A (the Estimated Project Cost). Services will be performed on a time and materials basis per our Fee Schedule in effect at the time services are performed. Exhibit A is an estimate only, and actual costs may be higher or lower. Work that exceeds the Estimated Project Cost will be brought to your attention for review, approval, and fee adjustment. Our estimated fees are valid for a period of 60 days from the date of this proposal, after which they are subject to change.

If you have any questions, we would be glad to meet with you to discuss this proposal at your convenience. Otherwise, if the scope and fee above are acceptable, this letter can serve as our agreement by concurring below and initialing the attached GHD Standard Terms and Conditions.

Sincerely,

Paul K. Baron Principal/Pacific Service Group Manager	Concurred Authorized Representative	Date

EXHIBIT A . ESTIMATED PROJECT COST 5-21-2018 Exhibit A (5 of 5) GWA Island-Wide Well Project

Phase Letter and Task Number	Task Description	Principal/Mechanical Engineer (Paul Baron/Dan Reiter)	Senior Electrical Engineer (Rick Guggiana)	Electrical Engineer (Joseph Liberato)	Structural Engineer (Andre Tenorio)	Civil Engineer (Jecelia Llegado)	Amount
HOURLY LABOR RATES							
A	**CONSTRUCTION PHASE TASKS**						
A1.0	**Update Plans and Specifications**						$ 40,000
A2.0	**Bid Period Support**						$ 10,000
B1.0	**Submittals & Shop Drawings (30 estimated)**						$ 30,000
B2.0	**Project Meetings (5 estimated)**						$ 4,000
B3.0	**Request for Information (30 estimated)**						$ 40,000
B4.0	**Site Visits (9 estimated)**						$ 4,000
B5.0	**Pump Sizing and Settings**						$ 7,000
B6.0	**Final As-built Drawings**						$ 15,000
	CONSTRUCTION PHASE SERVICES HOUR SUBTOTAL						
	CONSTRUCTION PHASE SERVICES SUBTOTAL						**$ 170,000**
ALL	**TOTAL**						**$ 170,000**

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. 52- FY2018
Relative to Approval of Change Orders to the Baza Gardens Wastewater Cross-Island Pumping and Conveyance System Phase I and Phase II Contracts

What is the project's objective and is it necessary and urgent?
This resolution will address pending Change Order proposals with the Phase I and Phase II contractor for the Baza Gardens Wastewater Cross-Island Pumping and Conveyance System project. Critical scheduling of the installation work for the last leg of the 21-inch diameter gravity main that would complete the wastewater conveyance system to the new Agat-Santa Rita WWTP has been affected by the delay in completing work at the WWTP, and therefore was Change Ordered to the Phase I and II contracts. In executing this particular work all contingency funds authorized for the Phase I and II contacts were depleted and as such prior Change Order Proposals that GWA has deemed acceptable and would have been funded by such contingencies, now require additional CCU action to allow GWA management to address them.

Where is the location?
All work related to the pending Change Order Proposals were along Route 17 and Route 2A.

How much will it cost?
GWA management is seeking CCU approval for additional funding for Change Order Proposals related to the Phase I and Phase II contracts in the amount of Three Hundred Twenty-Four Thousand Three Hundred Fifty-Two Dollars and Fifty-Eight Cents ($324,352.58) and One Hundred Twenty-Eight Thousand Nine Hundred Seventy-Five Dollars and Twenty-Six Cents ($128,975.26), respectively.

GWA management seeks CCU approval for additional funding for the Change Order Proposals for Phase I and Phase II noted above, plus a ten percent (10%) contingency to these amounts or Thirty Two Thousand Four Hundred Thirty-Five Dollars and Twenty Six Cents ($32,435.26) and Twelve Thousand Eight Hundred Ninety-Seven Dollars and Fifty-Two Cents ($12,897.52) respectively, to bring the total authorized funding to the Phase I contract to Eight Million Six Hundred Thirty-Nine Thousand Three Hundred Forty-Six Dollars and Fifty-Nine Cents ($8,639,346.59) and a total authorized finding for Phase II to Six Million Three Hundred Fifty-Six Thousand Eight Hundred Seventy Dollars and Forty Eight Cents ($6,356,870.48)

When will it be completed?
December 2018

What is the funding source?
Additional funding needs will be from wastewater bond funds applicable to the project as well as System Development Charge funds

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. 52-FY2018

RELATIVE TO APPROVAL OF CHANGE ORDERS TO THE BAZA GARDENS WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PHASE I AND PHASE II CONTRACTS

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, to meet a mandate of the 2011 federal Court Order regarding the Baza Gardens Wastewater Treatment Plant (WWTP), GWA elected to remove the treatment plant from operation and to instead pump the wastewater to the new (under construction) Agat-Santa Rita WWTP; and

WHEREAS, due to schedule and funds constraints, the project was divided into three phases (I, II and III) and three separate construction contracts, extending from the Baza Gardens WWTP, across Route 17 (cross-island road), and terminating at the entrance to the new Agat-Santa Rita WWTP on Route 2A; and

WHEREAS, the CCU approved via Resolution 01-FY2017 a total funding authorization for Phase I with BME & Sons in the amount of Eight Million Two Hundred Eighty-Two Thousand Five Hundred Fifty-Eight Dollars and Seventy-Five Cents ($8,282,558.75); via Resolution 13-FY2017 a total funding authorization for Phase II with BME & Sons in the amount of Six Million Two Hundred Fourteen Thousand Nine Hundred Ninety-Seven Dollars and Seventy Cents ($6,214,997.70) and via Resolution 29-FY2017 a total funding authorization

for Phase III with Sumitomo-Mitsui Construction Company in the amount of Sixteen Million Three Hundred Seven Thousand Four Hundred Thirty Six Dollars and Sixty Cents ($16,307,436.60); and

WHEREAS, the portion of the gravity conveyance system along the entrance road (from Route 2A to the Agat-Santa Rita WWTP site) that is 0.5 miles long was not included in Phase I, II or III of the Cross-Island project as it was deemed in 2016 that the contractor for the new Agat-Santa Rita WWTP project might be better positioned to more cost-effectively execute the gravity line installation work; and

WHEREAS, as of September 2018, the contractor for Phase I of the subject project completed gravity line installation along Route 2A and reached the entrance road to the new Agat Santa Rita WWTP and the contractor for the new WWTP unfortunately was not ready to execute additional scope related to installing of the gravity line along the entrance roadway; and

WHEREAS, due to efforts to comply with Court Order deadlines related to the Baza Gardens WWTP as best as possible, GWA management executed two Change Orders with the Phase I and Phase II contractor, which happen to be the same contractor, BME & Sons, Inc., to install the 21-inch diameter gravity sewer along the entrance roadway to the new WWTP to complete the wastewater conveyance system; and

WHEREAS, the execution of these Change Orders related to the 21-inch gravity line installation depleted the contingency funds approved via CCU Resolution No. 01-FY2017 for the Phase I contract and CCU Resolution No. 13-FY2017 for Phase II contract; and

WHEREAS, both Phase I and Phase II contracts had, prior to the execution of the Change Orders for the 21-inch gravity sewer line installation, pending Change Order Proposals related to unexpected costs for endangered species mitigation measures, unexpected buried utilities in the Navy right-of-way, as well as various sites changes that impacted project cost; and

DRAFT

WHEREAS, GWA management determined the installation of the 21-inch gravity line was of higher priority to be completed and that the pending Changed Order Proposals noted above would be addressed via a CCU resolution as a later date; and

WHEREAS, the Change Order Proposals related to the Phase I and Phase II contracts noted above total Three Hundred Twenty-Four Thousand Three Hundred Fifty-Two Dollars and Fifty-Eight Cents ($324,352.58) (See Exhibit A) and One Hundred Twenty-Eight Thousand Nine Hundred Seventy-Five Dollars and Twenty-Six Cents ($128,975.26) (See Exhibit B) respectively; and

WHEREAS, GWA management seeks CCU approval for additional funding for the Change Order Proposals for Phase I and Phase II noted above, plus a ten percent (10%) contingency to these amounts or Thirty Two Thousand Four Hundred Thirty-Five Dollars and Twenty Six Cents ($32,435.26) and Twelve Thousand Eight Hundred Ninety-Seven Dollars and Fifty-Two Cents ($12,897.52) respectively, to bring the total authorized funding to the Phase I contract to Eight Million Six Hundred Thirty-Nine Thousand Three Hundred Forty-Six Dollars and Fifty-Nine Cents ($8,639,346.59) and a total authorized finding for Phase II to Six Million Three Hundred Fifty-Six Thousand Eight Hundred Seventy Dollars and Forty Eight Cents ($6,356,870.48); and

WHEREAS, funding for this project will be from wastewater bond funds applicable to the project as well as System Development Charge funds; 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 hereby authorizes additional funding to the Phase I and Phase II contracts for the Baza Gardens Wastewater Cross-Island Pumping and Conveyance project in the amount of Three Hundred Fifty-Six Thousand Seven Hundred Eight-Seven Dollars and Eight-Fours Cents ($356,787.84) (Exhibit A) and One Hundred Forty-One Thousand Eight Hundred Seventy-Two Dollars and Seventy-Eight Cents ($141,872.78) (Exhibit B), respectively.

3. The CCU further authorizes the total authorized funding to the Phase I contract to Eight Million Six Hundred Thirty-Nine Thousand Three Hundred Forty-Six Dollars and Fifty-Nine Cents ($8,639,346.59) and a total authorized finding for Phase II to Six Million Three Hundred Fifty-Six Thousand Eight Hundred Seventy Dollars and Forty-Eight Cents ($6,356,870.48).
4. The CCU further authorizes the funding for this project will be from wastewater bond funds applicable to the project as well as System Development Charge funds

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

DULY AND REGULARLY ADOPTED, this 25th day of September, 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: _____

Exhibit A

ACTIVITY AND LOCATION:	CONSTRUCTION CONTRACT NO.:	DATE:
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1		6/21/2018
	ESTIMATED BY: **BME & SONS, INC**	
CCR#13 Re-routing of Gravity Sewer along Rt-17 & Rt-5 Intersection - Encroaching Federal Property	STATUS OF DESIGN:	

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Deduct excavation works for comm trenches	*-45.04*	*CY*		$ -	*6.00*	$ *(270.25)*	$ *11.00*	$ *(495.46)*	*17.00*	$ *(765.71)*
	Deduct selected fill and compactions	*-12.33*	*CY*		$ -	*8.00*	$ *(98.67)*	$ *5.10*	$ *(62.90)*	*13.10*	$ *(161.57)*
	Deduct disposal of excess soil materials	*-33.00*	*CY*		$ -		$ -	$ *7.00*	$ *(231.00)*	*7.00*	$ *(231.00)*
	Deduct installation of Detectable warning tape	*-282.00*	*LF*	*0.50*	$ *(141.00)*	*0.50*	$ *(141.00)*		$ -	*1.00*	$ *(282.00)*
	Deduct concrete encasement, 3000Psi	*-13.71*	*CY*	*137.00*	$ *(1,878.04)*	*18.70*	$ *(256.35)*		$ -	*155.70*	$ *(2,134.39)*
	Deduct concrete flowable fill	*-15.56*	*CY*	*110.75*	$ *(1,722.78)*	*22.85*	$ *(355.44)*		$ -	*133.60*	$ *(2,078.22)*
	Deduct installation of Communication handhole	*-1*	*EA*		$ -	*500.00*	$ *(500.00)*	$ *200.00*	$ *(200.00)*	*700.00*	$ *(700.00)*
	Note: Precast Comm Handhole will be Turn-over to GWA				$ -		$ -		$ -	-	$ -
	Deduct installation of 2-4"dia Communication conduit	*-282*	*LF*		$ -	*3.65*	$ *(1,029.30)*		$ -	*3.65*	$ *(1,029.30)*
	ADDITIVE WORKS										
	Force Maine - 3 (additional from sta.27+64.06 to sta.31+28.56)										
	moving excavation due to underground utilities)	*65.19*	*CY*		$ -	*12.00*	$ *782.22*	$ *28.00*	$ *1,825.19*	*40.00*	$ *2,607.41*
	Provide Pipe Bedding Sand	*34.52*	*TONS*	*35.85*	$ *1,237.49*	*10.00*	$ *345.19*	$ *6.50*	$ *224.37*	*52.35*	$ *1,807.04*
	Provide Flowable Fill for paved areas and shoulder	*41.34*	*CY*	*110.75*	$ *4,578.18*	*22.85*	$ *944.57*		$ -	*133.60*	$ *5,522.76*
	Disposal of excess soil materials	*65.19*	*CY*		$ -	*5.00*	$ *325.95*	$ *10.00*	$ *651.90*	*15.00*	$ *977.85*
	Provide Detectable warning tape, 6"	*160*	*LF*	*0.50*	$ *80.00*	*0.50*	$ *80.00*		$ -	*1.00*	$ *160.00*
	Provide 10" dia. PVC pipes, C900 (force main)	*380*	*LF*	*21.50*	$ *8,170.00*		$ -		$ -	*21.50*	$ *8,170.00*
	Provide 10"dia. 1/32 bend DI Elbows	*3*	*EA*	*352.00*	$ *1,056.00*		$ -		$ -	*352.00*	$ *1,056.00*
	Note: All 10" dia. C900 PVC Pipes and fittings specifed above are already been procured when the rev.04 drawing was released										
	Install 10" dia. PVC pipes, C900 (force main)	*160*	*LF*		$ -	*12.70*	$ *2,032.00*	$ *3.50*	$ *560.00*	*16.20*	$ *2,592.00*
	Note: 160LF of 10" C900 PVC Pipes was already been installed from sta.0+00 to MH43										
	Survey Works	*1*	*Lot*		$ -	*1,500.00*	$ *1,500.00*		$ -	*1,500.00*	$ *1,500.00*
	Force Main - 3 Road Repair										
	Provide Saw-cutting of existing AC pavements	*320*	*LF*		$ -	*1.50*	$ *480.00*	$ *0.75*	$ *240.00*	*2.25*	$ *720.00*
	Remove and dispose affected AC pavements	*58.67*	*SY*		$ -		$ -	$ *7.00*	$ *410.67*	*7.00*	$ *410.67*
	Provide Cold Mix AC Pavement Restoration	*58.67*	*SY*	*40.43*	$ *2,371.89*	*15.00*	$ *880.00*	$ *5.00*	$ *293.33*	*60.43*	$ *3,545.23*
	Sewer Line C - Re-works on MH46										
	Removal of installed percast manhole (MH#46)										
	- Excavation works	*31.26*	*CY*		$ -	*10.00*	$ *312.59*	$ *15.00*	$ *468.88*	*25.00*	$ *781.47*
	- Backfilling and compactions, 10' x 10' x 10 ft deep backfilling	*37.04*	*CY*	*28.00*	$ *1,037.04*		$ -		$ -	*28.00*	$ *1,037.04*
	backfilling in 12" lift compacted to 10"	*12.00*	*lift*			*16.50*	$ *198.00*	$ *55.00*	$ *660.00*	*71.50*	$ *858.00*
	Compaction per lift	*12.00*	*lift*			*10.50*	$ *126.00*	$ *15.00*	$ *180.00*	*25.50*	$ *306.00*
	Compaction testing per lift	*12.00*	*lift*				$ -	$ *45.00*	$ *540.00*	*45.00*	$ *540.00*
	Compaction testing tech stand-by	*12.00*	*hr*			*55.00*	$ *660.00*		$ -	*55.00*	$ *660.00*

ACTIVITY AND LOCATION:
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1

CCR#13 Re-routing of Gravity Sewer along Rt-17 & Rt-5 Intersection - Encroaching Federal Property

CONSTRUCTION CONTRACT NO.:

DATE: 6/21/2018

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	DEDUCTIVE WORKS										
	Sewer Line C (Rt5 & Rt17 Intersection) sta.0+00 to sta.2+82.53										
	Deduct excavation works from gravity pipes at sta. 0+00 to sta. 2+82.53	-215.78	CY		$ -	6.00	$ (1,294.67)	$ 11.00	$ (2,373.56)	17.00	$ (3,668.22)
	Deduct excavation works for regualar manhole MH42 & 43	-47.41	CY		$ -	6.00	$ (284.44)	$ 11.00	$ (521.48)	17.00	$ (805.93)
	Deduct selected fill materials and compactions (pipeline on off-road areas)	-130.00	CY		$ -	8.00	$ (1,040.00)	$ 5.10	$ (663.00)	13.10	$ (1,703.00)
	Deduct pipe bedding sand	-65.28	TONS	35.85	$ (2,340.21)	10.00	$ (652.78)	$ 6.50	$ (424.31)	52.35	$ (3,417.29)
	Deduct flowable fill (pipeline on pave areas)	-31.11	CY	110.75	$ (3,445.56)	22.85	$ (710.89)		$ -	133.60	$ (4,156.44)
	Deduct Concrete Encasement on pipes w/ above utilty crossings (20ft long)	-2.96	CY	137.00	$ (405.93)	18.70	$ (55.41)		$ -	155.70	$ (461.33)
	Deduct disposal of excess soil materials	-190	CY		$ -		$ -	$ 7.00	$ (1,330.00)	7.00	$ (1,330.00)
	Deduct installation of warning tape "Sewerline"	-282	LF	0.50	$ (141.00)	0.50	$ (141.00)		$ -	1.00	$ (282.00)
	Deduct installtion of 12" PVC Pipe SDR35	-282	LF		$ -	12.70	$ (3,581.40)	$ 3.50	$ (987.00)	16.20	$ (4,568.40)
	Deduct installation of fitings for drop manhole	-1	EA		$ -	700.00	$ (700.00)		$ -	700.00	$ (700.00)
	Delete Precast Concrete Manhole 8' - 10' depth, 4'dia, regular, includes concrte collar, MH frame, cover and odor control insert (MH42&43)										
	- Delete Compacted Basecoarse	-3.18	TONS	35.00	$ (111.16)	24.00	$ (76.22)		$ -	59.00	$ (187.38)
	- Delete installation of MH Frame and MH Odor Insert	-2	EA		$ -	350.00	$ (700.00)	$ 100.00	$ (200.00)	450.00	$ (900.00)
	- Delete reinforced concrete colar	-2.03	CY	180.00	$ (366.02)	325.00	$ (660.86)	$ 50.00	$ (101.67)	555.00	$ (1,128.55)
	- Delete installation of MH#41	-2	EA		$ -	570.00	$ (1,140.00)	$ 475.00	$ (950.00)	1,045.00	$ (2,090.00)
	Note1 : Regular Concrete Precast Manhole MH42 & MH43, MH Frame & Cover and 200LF of 12" PVC pipes will be Turn-over to GWA										
	Note 2: MH43 for this revised drawing will be Effluent Manhole w/c is previously MH41 on the original contract drawing										
	Deduct concrete encasement of piping for manhole drop connections to manhole	-1.13	CY	137.00	$ (154.13)	30.00	$ (33.75)	$ 10.00	$ (11.25)	177.00	$ (199.13)
	Delete Epoxy Coating Liner for Precast Manhole MH42 & MH43	-216.00	SF	2.35	$ (507.60)	4.00	$ (864.00)		$ -	6.35	$ (1,371.60)
	Sewer Line C - Road Repair along Rt5 & Rt17 Intersection										
	Delete saw-cutting portion of AC Pavements	-280	LF		$ -	1.50	$ (420.00)	$ 0.75	$ (210.00)	2.25	$ (630.00)
	Delete removal and disposal of AC Pavements	-46.67	SY		$ -		$ -	$ 7.00	$ (326.67)	7.00	$ (326.67)
	Delete 3" thk AC Pavement	-46.67	SY	40.43	$ (1,886.73)		$ -		$ -	40.43	$ (1,886.73)
	Communication Conduit and Handhole Installation										

ACTIVITY AND LOCATION:	CONSTRUCTION CONTRACT NO.:	DATE:
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1		6/21/2018
	ESTIMATED BY: **BME & SONS, INC**	
CCR#13 Re-routing of Gravity Sewer along Rt-17 & Rt-5 Intersection - Encroaching Federal Property	STATUS OF DESIGN:	

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	- Removal of precast manhole from trench	*1*	*EA*		$ -	*500.00*	$ *500.00*	$ *300.00*	$ *300.00*	*800.00*	$ *800.00*
	Hauling precast manhole turn over to GWA yard	*1*	*EA*		$ -	*150.00*	$ *150.00*	$ *500.00*	$ *500.00*	*650.00*	$ *650.00*
	Sewer Line C (Rt5 & Rt17 Intersection) sta.0+00 to sta.0+81.99										
	Excavation works from gravity pipes at sta. 0+00 to sta. 0+81.99 (slow moving excavation due to underground utilities)	*82*	*CY*		$ -	*12.00*	$ *984.00*	$ *28.00*	$ *2,296.00*	*40.00*	$ *3,280.00*
	Eexcavation works for MH44 & MH45	*42.67*	*CY*		$ -	*7.00*	$ *298.67*	$ *15.00*	$ *640.00*	*22.00*	$ *938.67*
	Provide pipe bedding sand	*18.52*	*TONS*	*35.85*	$ *663.89*	*10.00*	$ *185.19*	$ *6.50*	$ *120.37*	*52.35*	$ *969.44*
	Provide flowable fill (pipeline on pave areas)	*67.19*	*CY*	*110.75*	$ *7,441.29*	*22.85*	$ *1,535.29*		$ -	*133.60*	$ *8,976.58*
	Diisposal of excess soil materials	*82*	*CY*		$ -		$ -	$ *7.00*	$ *574.00*	*7.00*	$ *574.00*
	Provide warning tape "Sewerline"	*82*	*LF*	*0.50*	$ *41.00*	*0.50*	$ *41.00*		$ -	*1.00*	$ *82.00*
	Installtion of 12" PVC Pipe SDR35	*82*	*LF*		$ -	*12.70*	$ *1,041.40*	$ *3.50*	$ *287.00*	*16.20*	$ *1,328.40*
	Installation Precast Concrete Manhole MH44										
	- Additional 1ft High Riser due to changes in elevation	*1.00*	*EA*	*284.25*	$ *284.25*	*150.00*	$ *150.00*	$ *100.00*	$ *100.00*	*534.25*	$ *534.25*
	Installation Precast Concrete Manhole MH45										
	- Modification works for Manhole Inlet	*1.00*	*EA*	*100.00*	$ *100.00*	*300.00*	$ *300.00*	$ *50.00*	$ *50.00*	*450.00*	$ *450.00*
	Sewer Line C - Road Repair along Rt5 & Rt17 Intersection sta.0+00 to sta. 0+81.99										
	Saw-cutting portion of AC Pavements	*164*	*LF*		$ -	*1.50*	$ *246.00*	$ *0.75*	$ *123.00*	*2.25*	$ *369.00*
	Removal and disposal of AC Pavements	*53.53*	*SY*		$ -		$ -	$ *7.00*	$ *374.73*	*7.00*	$ *374.73*
	Provide Cold Mix AC Pavement Restoration	*53.53*	*SY*	*40.43*	$ *2,164.35*		$ -		$ -	*40.43*	$ *2,164.35*
	Communication Conduit and Handhole Installation										
	Provide excavation works for comm trenches	*38.33*	*CY*		$ -	*6.00*	$ *230.00*	$ *11.00*	$ *421.67*	*17.00*	$ *651.67*
	Provide selected fill and compactions		*CY*		$ -	*8.00*	$ -	$ *5.10*	$ -	*13.10*	$ -
	Provide disposal of excess soil materials	*38.33*	*CY*		$ -		$ -	$ *7.00*	$ *268.31*	*7.00*	$ *268.31*
	Provide installation of Detectable warning tape	*240*	*LF*	*0.50*	$ *120.00*	*0.50*	$ *120.00*		$ -	*1.00*	$ *240.00*
	Provide concrete encasement, 3000Psi	*11.67*	*CY*	*137.00*	$ *1,598.33*	*18.70*	$ *218.17*		$ -	*155.70*	$ *1,816.50*
	Provide concrete flowable fill	*26.67*	*CY*	*110.75*	$ *2,953.33*	*22.85*	$ *609.33*		$ -	*133.60*	$ *3,562.67*
	Installation of 2-4"dia Communication conduit	*240*	*LF*		$ -	*3.65*	$ *876.00*		$ -	*3.65*	$ *876.00*
	Survey-Take survey of existing conditions of existing utilities to reflect on as-built drawings.	*1*	*LOT*	*1,200.00*	$ *1,200.00*		$ -		$ -	*1,200.00*	$ *1,200.00*
	Exploration of existing utilities. Using 2 workers + backhoe in 2 days	*1*	*LOT*		$ -	*320.00*	$ *320.00*	$ *1,040.00*	$ *1,040.00*	*1,360.00*	$ *1,360.00*
	Total Direct (Additive & Deductive)				$ ***21,996.91***		$ ***1,465.14***		$ ***4,061.13***		$ ***27,523.18***
	Overhead	*10%*									$ *2,752.32*
	Direct Admin & Supervisory Cost	*3%*									$ *825.70*

ACTIVITY AND LOCATION: **GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1**				CONSTRUCTION CONTRACT NO.:						DATE: 6/21/2018	
				ESTIMATED BY: **BME & SONS, INC**							
CCR#13 Re-routing of Gravity Sewer along Rt-17 & Rt-5 Intersection - Encroaching Federal Property				STATUS OF DESIGN:							
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	SUB-TOTAL										***$ 31,101.19***
	Profit	***8%***									***$ 2,488.10***
	SUB-TOTAL										***$ 33,589.29***
	GRT	***4.167%***									***$ 1,399.67***
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#13										***$ 34,988.95***

ACTIVITY AND LOCATION: **GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1**				CONSTRUCTION CONTRACT NO.:						DATE: 6/21/2018	
				ESTIMATED BY: **BME & SONS, INC**							
CCR#14 Rework Gravity Pipes between SHM#3 & SMH#4 due to conflict elevation with existing Storm Drain (RFI#24)				STATUS OF DESIGN:							
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Existing Storm Drain line was found in conflict of new Gravity line during the pipe laying near SMH#4. All new laid pipes was pulled out and trench was covered right away due to deep and wide excavations										
a	*Excavation works from gravity pipes SMH#3 to SMH#4*	*100.00*	*CY*		$ -	*8.00*	$ *800.00*	$ *12.00*	$ *1,200.00*	*20.00*	$ *2,000.00*
b	*Installation of 12" pipe*	*60.00*	*FT*		$ -	*12.50*	$ *750.00*	$ *2.50*	$ *150.00*	*15.00*	$ *900.00*
b.1	*Pull-out and salvage newly installed pipes*	*60.00*	*FT*		$ -	*10.00*	$ *600.00*	$ *2.50*	$ *150.00*	*12.50*	$ *750.00*
c	*Backfilling of excavated trench*	*100.00*	*CY*		$ -	*8.00*	$ *800.00*	$ *5.00*	$ *500.00*	*13.00*	$ *1,300.00*
d	*Remove portion of existing 30" drainage line*	*8.00*	*LF*		$ -	*7.50*	$ *60.00*	$ *15.00*	$ *120.00*	*22.50*	$ *180.00*
e	*Concrete in-fill original manhole pipe opening*	*1*	*EA*	*50.00*	$ *50.00*	*80.00*	$ *80.00*		$ -	*130.00*	$ *130.00*
f	*Make new opening for 12" dia pipe using jack hammer power tools with 2 workers at 4 hrs*	*1*	*EA*		$ -	*100.00*	$ *100.00*	$ *50.00*	$ *50.00*	*150.00*	$ *150.00*
g	*Repair rough openings/concrete in-fill after pipe installation*	*1*	*EA*	*25.00*	$ *25.00*	*50.00*	$ *50.00*		$ -	*75.00*	$ *75.00*
h	*Provide additional concrete topping inside manhole, revised manhole drop elevations with additional of 2 feet topping*	*1*	*CY*	*175.00*	$ *175.00*	*150.00*	$ *150.00*		$ -	*325.00*	$ *325.00*
	Note:Crew worked overtime to backfilled and temporary restore the trench for safety purposes and trench gets wider on the re-excavation.										
	Total Direct (Additive & Deductive)				***$ 250.00***		***$ 3,390.00***		***$ 2,170.00***		***$ 5,810.00***
	Overhead	*10%*						`			$ *581.00*
	Direct Admin & Supervisory Cost	*3%*									$ *174.30*
	SUB-TOTAL										***$ 6,565.30***
	Profit	*8%*									$ *525.22*
	SUB-TOTAL										***$ 7,090.52***
	GRT	*4.167%*									$ *295.46*
	TOTAL PROPOSED AMOUNT FOR CCR#14										***$ 7,385.99***

ACTIVITY AND LOCATION: **GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1**				CONSTRUCTION CONTRACT NO.:						DATE: **Wednesday, July 25, 2018**	
				ESTIMATED BY: **BME & SONS, INC**							
CCR#15_rev01 Road Trench Restortion (RFI#27 SMH61 - Revised pipe lay-out at Paved Area)				STATUS OF DESIGN:							
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
21	**Sewer Line C - New Road Restoration by Patching, 3ft x 340LF for Sewrline & 20" x 340ft for CommLine**										
	Saw-cut existing AC pavement	*696*	*LF*		*$ -*	*1.50*	*$ 1,044.00*	*$ 0.75*	*$ 522.00*	*2.25*	*$ 1,566.00*
	Remove and dispose affected AC pavements, Sewerline	*132.50*	*SY*		*$ -*		*$ -*	*$ 7.00*	*$ 927.50*	*7.00*	*$ 927.50*
	Remove and dispose affected AC pavements, CommLine	*76*	*SY*		*$ -*		*$ -*	*$ 7.00*	*$ 532.00*	*7.00*	*$ 532.00*
	Provide 3" thick Cold mix asphalt restoration (temporary patching) - ***For Sewerline & CommLine***	*208.50*	*SY*	*34.80*	*$ 7,255.80*	*5.00*	*$ 1,042.50*	*$ 9.20*	*$ 1,918.20*	*49.00*	*$ 10,216.50*
	Temporary Traffic Control										
	Provide Traffic control (Signages, Barriers, etc..)										
	- Flagmans, 2 men	*5*	*Days*		*$ -*	*160.00*	*$ 800.00*		*$ -*	*160.00*	*$ 800.00*
	Provide temporary steel plate	*340*	*LF*		*$ -*	*6.00*	*$ 2,040.00*	*$ 3.00*	*$ 1,020.00*	*9.00*	*$ 3,060.00*
	Total Direct (Additive & Deductive)				***$ 7,255.80***		***$ 4,926.50***		***$ 4,919.70***		***$ 17,102.00***
	Overhead	*10%*						`			*$ 1,710.20*
	Direct Admin & Supervisory Cost	*3%*									*$ 513.06*
	SUB-TOTAL										***$ 19,325.26***
	Profit	*8%*									*$ 1,546.02*
	SUB-TOTAL										***$ 20,871.28***
	GRT	*4.167%*									*$ 869.71*
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#15										***$ 21,740.99***

ACTIVITY AND LOCATION:	CONSTRUCTION CONTRACT NO.:	DATE:
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1		**7/25/2018**
	ESTIMATED BY: **BME & SONS, INC**	
CCR#19 Route 2A Road Restoration due to Sewerline Re-alignment from SMH#74 Sta. 73+48.33 to SMH#81 Sta 95+83.69	STATUS OF DESIGN:	

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	ADDITIVE WORKS										
	Traffic Control										
	Provide additional traffic control along sta. 72+00 to sta. 79+00 and from Sta 88+50 to 91+50										
	- Flagmans, 2man-crew	*20*	*Days*		*$ -*	*160.00*	*$ 3,200.00*		*$ -*	*160.00*	*$ 3,200.00*
	Provide temporary steel plate	*1000*	*LF*		*$ -*	*2.00*	*$ 2,000.00*	*$ 3.00*	*$ 3,000.00*	*5.00*	*$ 5,000.00*
	Manhole Adjustment										
	For MH74, adjustment of grade ring from 3" to 8" height	*1*	*EA*	*150.00*	*$ 150.00*	*200.00*	*$ 200.00*		*$ -*	*350.00*	*$ 350.00*
	For MH75, additional 1ft high precast riser	*1*	*EA*	*284.25*	*$ 284.25*	*100.00*	*$ 100.00*	*$ 50.00*	*$ 50.00*	*434.25*	*$ 434.25*
	For MH76, adjustment of grade ring from 3" to 5" height	*1*	*EA*	*100.00*	*$ 100.00*	*150.00*	*$ 150.00*		*$ -*	*250.00*	*$ 250.00*
	For MH77, No adjustment										
	Provide additional precast manholes SMH79A between SMH79 & SMH80:										
	- Precast Manhole Base, 2.83' high	*1*	*EA*	*1,764.00*	*$ 1,764.00*	*250.00*	*$ 250.00*	*$ 180.00*	*$ 180.00*	*2,194.00*	*$ 2,194.00*
	- Precast Manhole Cone, 3' high	*1*	*EA*	*743.65*	*$ 743.65*	*150.00*	*$ 150.00*	*$ 150.00*	*$ 150.00*	*1,043.65*	*$ 1,043.65*
	- Precast 1ft high Riser	*1*	*EA*	*284.25*	*$ 284.25*	*150.00*	*$ 150.00*	*$ 150.00*	*$ 150.00*	*584.25*	*$ 584.25*
	- Concrete grade ring, 6" high, cast in-place	*1*	*EA*	*150.00*	*$ 150.00*	*250.00*	*$ 250.00*		*$ -*	*400.00*	*$ 400.00*
	- 15" dia Kor-N-Seal	*2*	*EA*	*126.65*	*$ 253.30*	*50.00*	*$ 100.00*		*$ -*	*176.65*	*$ 353.30*
	- airfreight cost of KorNSeal	*2*	*EA*	*125.00*	*$ 250.00*		*$ -*		*$ -*	*125.00*	*$ 250.00*
	- Butyl Joint Sealant	*21*	*LF*	*2.50*	*$ 52.50*	*5.00*	*$ 105.00*		*$ -*	*7.50*	*$ 157.50*
	- 30" Manhole Frame and cover (used MH frame and cover from MH26)	*1*	*EA*	*829.28*	*$ 829.28*	*180.00*	*$ 180.00*	*$ 25.00*	*$ 25.00*	*1,034.28*	*$ 1,034.28*
	- Reinforced concrete collar	*1*	*EA*	*150.00*	*$ 150.00*	*300.00*	*$ 300.00*	*$ 50.00*	*$ 50.00*	*500.00*	*$ 500.00*
	- Epoxy concrete liner	*103.96*	*SF*	*2.35*	*$ 244.31*	*4.00*	*$ 415.84*		*$ -*	*6.35*	*$ 660.15*
	Sewer Line C (Rout 2A) - Additional Road Restoration										
	Additional saw-cutting of existing pavement Sta. 72+00 to Sta 79+10 and Sta 88+50 to Sta 91+50 (1010 LF x 3)	*3030*	*LF*		*$ -*	*1.50*	*$ 4,545.00*	*$ 0.75*	*$ 2,272.50*	*2.25*	*$ 6,817.50*
	Removal & disposal of existing pavement from Sta. 72+00 to Sta 79+10 and Sta 88+50 to Sta 91+50 (1010 LF x 12)	*1347*	*SY*		*$ -*		*$ -*	*$ 7.00*	*$ 9,429.00*	*7.00*	*$ 9,429.00*
	Provide additonal 3" thk AC Pavements	*1347*	*SY*	*40.43*	*$ 54,459.21*	*1.00*	*$ 1,347.00*		*$ -*	*41.43*	*$ 55,806.21*
	Provide additonal 3/4" thk Friction course	*1347*	*SY*	*22.61*	*$ 30,455.67*		*$ -*		*$ -*	*22.61*	*$ 30,455.67*
	Provide painted line markings	*1010*	*LF*	*1.25*	*$ 1,262.50*	*1.50*	*$ 1,515.00*		*$ -*	*2.75*	*$ 2,777.50*
	Revisions on SMH80 - invert at downstream is deeper of 2 ft:										
	No Change on volume of excavation										
	Modification of SMH80 due to revised elevation										

ACTIVITY AND LOCATION: **GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1**				CONSTRUCTION CONTRACT NO.:						DATE: **7/25/2018**	
				ESTIMATED BY: **BME & SONS, INC**							
CCR#19 Route 2A Road Restoration due to Sewerline Re-alignment from SMH#74 Sta. 73+48.33 to SMH#81 Sta 95+83.69				STATUS OF DESIGN:							
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	- fill to block-out existing manhole opening	*1*	*EA*	*50.00*	*$ 50.00*	*180.00*	*$ 180.00*	*$ 25.00*	*$ 25.00*	*255.00*	*$ 255.00*
	- provide new opening	*1*	*EA*	*25.00*	*$ 25.00*	*300.00*	*$ 300.00*	*$ 120.00*	*$ 120.00*	*445.00*	*$ 445.00*
	Modification of SMH81 due to revised elevation										
	- make the opeing bigger to fir new 12" pipe size	*1*	*EA*	*50.00*	*$ 50.00*	*180.00*	*$ 180.00*	*$ 25.00*	*$ 25.00*	*255.00*	*$ 255.00*
	Deduct concrete encasement	*-6*	*cy*	*135.40*	*$ (812.40)*	*35.00*	*$ (210.00)*	*$ 5.00*	*$ (30.00)*	*175.40*	*$ (1,052.40)*
	- Deduct Rebars	*-240*	*lbs*	*0.90*	*$ (216.00)*	*0.90*	*$ (216.00)*	*$ 0.25*	*$ (60.00)*	*2.05*	*$ (492.00)*
	Re-survey works from Sta73+48.33 (SMH74) up to Sta 95.83.69 (SMH81)	*1*	*LOT*		*$ -*	*1,500.00*	*$ 1,500.00*		*$ -*	*1,500.00*	*$ 1,500.00*
	Total Direct (Additive & Deductive)				***$ 90,529.52***		***$ 16,691.84***		***$ 15,386.50***		***$ 122,607.86***
	Overhead	*10%*						`			*$ 12,260.79*
	Direct Admin & Supervisory Cost	*3%*									*$ 3,678.24*
	SUB-TOTAL										***$ 138,546.88***
	Profit	*8%*									*$ 11,083.75*
	SUB-TOTAL										***$ 149,630.63***
	GRT	*5.27%*									*$ 7,885.53*
	TOTAL PROPOSED ADDITIVE COST FOR CCR#19										***$ 157,516.16***

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1

CCR#20 Additional Manhole MH71A & MH71B at Rt5 & Rt2A due to unforeseen U/G waterline and Additional Road Restoration Due to TATA U/G cables

CONSTRUCTION CONTRACT NO.:

DATE: 7/25/2018

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	ADDITIVE WORKS										
	For Manholes MH71A and MH71B										
	Excavation for new manholes	*47.62*	*CY*		$ -	*7.50*	$ *357.16*	$ *15.00*	$ *714.31*	*22.50*	$ *1,071.47*
	Provide 300Psi flowable fill for manhole sub-base	*2.25*	*CY*	*110.75*	$ *249.03*	*22.85*	$ *51.38*	$ *5.00*	$ *11.24*	*138.60*	$ *311.65*
	Bckfilling and compactions around sewer manholes	*45.61*	*LCY*	*28.00*	$ *1,277.15*		$ -		$ -	*28.00*	$ *1,277.15*
	- Backfill in 12" lift compacted to 10"	*36.49*	*CY*		$ -	*5.00*	$ *182.45*	$ *12.00*	$ *437.88*	*17.00*	$ *620.33*
	- Compaction per lift	*8*	*lift*		$ -	*25.00*	$ *200.00*	$ *15.00*	$ *120.00*	*40.00*	$ *320.00*
	- Compaction testing per lift	*8*	*EA*		$ -		$ -	$ *45.00*	$ *360.00*	*45.00*	$ *360.00*
	- Compaction testing tech stand-by	*3*	*hr*		$ -	*55.00*	$ *165.00*		$ -	*55.00*	$ *165.00*
	Provide precast manholes ***MH71A***										
	- Precast Manhole Base, 4.83' high	*1*	*EA*	*2,318.00*	$ *2,318.00*	*250.00*	$ *250.00*	$ *180.00*	$ *180.00*	*2,748.00*	$ *2,748.00*
	- Precast Manhole Cone, 3' high	*1*	*EA*	*743.65*	$ *743.65*	*150.00*	$ *150.00*	$ *150.00*	$ *150.00*	*1,043.65*	$ *1,043.65*
	- Concrete grade ring, 6" high, cast in-place	*1*	*EA*	*150.00*	$ *150.00*	*250.00*	$ *250.00*		$ -	*400.00*	$ *400.00*
	- 15" dia Kor-N-Seal	*2*	*EA*	*126.65*	$ *253.30*	*50.00*	$ *100.00*		$ -	*176.65*	$ *353.30*
	- Butyl Joint Sealant	*14*	*LF*	*2.50*	$ *35.00*	*5.00*	$ *70.00*		$ -	*7.50*	$ *105.00*
	- 30" Manhole Frame and cover (used MH frame and cover from MH26)	*1*	*EA*		$ -	*180.00*	$ *180.00*	$ *25.00*	$ *25.00*	*205.00*	$ *205.00*
	- Reinforced concrete collar	*1*	*EA*	*150.00*	$ *150.00*	*300.00*	$ *300.00*	$ *50.00*	$ *50.00*	*500.00*	$ *500.00*
	- Epoxy concrete liner	*94.83*	*SF*	*2.35*	$ *222.85*	*4.00*	$ *379.31*		$ -	*6.35*	$ *602.16*
	Provide precast manholes ***MH71B***										
	- Precast Manhole Base, 4.83' high (use monolithic base from MH42)	*1*	*EA*		$ -	*250.00*	$ *250.00*	$ *180.00*	$ *180.00*	*430.00*	$ *430.00*
	- Precast Manhole Riser, 1' high (use 1ft riser from MH42)	*1*	*EA*		$ -	*150.00*	$ *150.00*	$ *150.00*	$ *150.00*	*300.00*	$ *300.00*
	- Precast Manhole Cone, 3' high	*1*	*EA*	*743.65*	$ *743.65*	*150.00*	$ *150.00*	$ *150.00*	$ *150.00*	*1,043.65*	$ *1,043.65*
	- Concrete grade ring, 10" high, cast in-place	*1*	*EA*	*175.00*	$ *175.00*	*250.00*	$ *250.00*		$ -	*425.00*	$ *425.00*
	- 15" dia Kor-N-Seal	*2*	*EA*	*126.65*	$ *253.30*	*50.00*	$ *100.00*		$ -	*176.65*	$ *353.30*
	- Butyl Joint Sealant	*14*	*LF*	*2.50*	$ *35.00*	*5.00*	$ *70.00*		$ -	*7.50*	$ *105.00*
	- 30" Manhole Frame and cover (used MH frame and cover from MH42)	*1*	*EA*		$ -	*180.00*	$ *180.00*	$ *25.00*	$ *25.00*	*205.00*	$ *205.00*
	- Reinforced concrete collar	*1*	*EA*	*150.00*	$ *150.00*	*300.00*	$ *300.00*	$ *50.00*	$ *50.00*	*500.00*	$ *500.00*
	- Epoxy concrete liner	*111.53*	*SF*	*2.35*	$ *262.10*	*4.00*	$ *446.13*		$ -	*6.35*	$ *708.23*
	Provide Manhole Testing for MH71A & MH71B	*2*	*EA*		$ -	*250.00*	$ *500.00*	$ *250.00*	$ *500.00*	*500.00*	$ *1,000.00*
	Survey for new location of SMH#71A & SMH#71B and pipe re-alignment from Sta 67+00 to SMH#72	*1*	*LOT*		$ -	*1,000.00*	$ *1,000.00*		$ -	*1,000.00*	$ *1,000.00*
	Additional Paving Demo Works for new MH location										
	Saw-cut portion of AC Pavement	*64*	*LF*		$ -	*1.50*	$ *96.00*	$ *0.75*	$ *48.00*	*2.25*	$ *144.00*
	Remove and dispose AC Pavement	*14.22*	*SY*		$ -		$ -	$ *8.58*	$ *122.03*	*8.58*	$ *122.03*
	Re-works for installed MH72										

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1

CCR#20 Additional Manhole MH71A & MH71B at Rt5 & Rt2A due to unforeseen U/G waterline and Additional Road Restoration Due to TATA U/G cables

CONSTRUCTION CONTRACT NO.:

DATE: 7/25/2018

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Re-excavation works	*19.81*	*CY*		$ -	*7.50*	$ *148.61*	$ *15.00*	$ *297.22*	*22.50*	$ *445.83*
	Pull-out of Manhole MH72	*1*	*EA*		$ -	*500.00*	$ *500.00*	$ *300.00*	$ *300.00*	*800.00*	$ *800.00*
	Bckfilling and compactions around sewer manholes	*24.76*	*LCY*	*28.00*	$ *693.35*		$ -		$ -	*28.00*	$ *693.35*
	- Backfill in 12" lift compacted to 10"	*19.81*	*CY*		$ -	*5.00*	$ *99.05*	$ *12.00*	$ *237.72*	*17.00*	$ *336.77*
	- Compaction per lift	*12*	*lift*		$ -	*25.00*	$ *300.00*	$ *15.00*	$ *180.00*	*40.00*	$ *480.00*
	- Compaction testing per lift	*12*	*EA*		$ -		$ -	$ *45.00*	$ *540.00*	*45.00*	$ *540.00*
	- Compaction testing tech stand-by	*3*	*hr*		$ -	*55.00*	$ *165.00*		$ -	*55.00*	$ *165.00*
	Additional Precast manhole riser, 2ft high	*1*	*EA*	*522.20*	$ *522.20*		$ -		$ -	*522.20*	$ *522.20*
	Re-installation works for MH72	*1*	*EA*		$ -	*750.00*	$ *750.00*	$ *500.00*	$ *500.00*	*1,250.00*	$ *1,250.00*
	Additional Butyl Joint Sealant	*56*	*LF*	*2.50*	$ *140.00*	*5.00*	$ *280.00*		$ -	*7.50*	$ *420.00*
	Additional Epoxy concrete liner	*25.12*	*SF*	*2.35*	$ *59.03*	*4.00*	$ *100.48*		$ -	*6.35*	$ *159.51*
	Sewer Line C (Rout 2A) - Additional Road Restoration dur to TATA underground cables										
	Additional saw-cutting of existing pavement Sta. 69+40 to Sta 72+00 (260 LF x 3)	*780*	*LF*		$ -	*1.50*	$ *1,170.00*	$ *0.75*	$ *585.00*	*2.25*	$ *1,755.00*
	Removal & disposal of existing pavement	*347*	*SY*		$ -		$ -	$ *7.00*	$ *2,429.00*	*7.00*	$ *2,429.00*
	Provide additonal 3" thk AC Pavements	*347*	*SY*	*40.43*	$ *14,029.21*	*1.00*	$ *347.00*		$ -	*41.43*	$ *14,376.21*
	Provide additonal 3/4" thk Friction course	*347*	*SY*	*22.61*	$ *7,845.67*		$ -		$ -	*22.61*	$ *7,845.67*
	Provide painted line markings	*260*	*LF*	*1.25*	$ *325.00*	*1.50*	$ *390.00*		$ -	*2.75*	$ *715.00*
	Restoration of existing concrete pavement underneath asphalt pavement										
	3ft x 111ft x 14" thick, 4,000PSI	*16*	*CY*	*165.00*	$ *2,640.00*	*35.00*	$ *560.00*	$ *5.00*	$ *80.00*	*205.00*	$ *3,280.00*
	Total Direct (Additive)				***$ 33,272.49***		***$ 10,937.57***		***$ 8,422.40***		***$ 52,632.46***
	Overhead	*10%*						`			$ *5,263.25*
	Direct Admin & Supervisory Cost	*3%*									$ *1,578.97*
	SUB-TOTAL										***$ 59,474.68***
	Profit	*8%*									$ *4,757.97*
	SUB-TOTAL										***$ 64,232.65***
	GRT	*5.27%*									$ *3,385.06*
	TOTAL PROPOSED ADDITIVE COST FOR CCR#20										***$ 67,617.72***

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1

CCR#21REv1 Aplacho Bridge Crossing Forcemain Re-alignment due to Snail Issue

CONSTRUCTION CONTRACT NO.:

DATE: **Wednesday, July 25, 2018**

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Aplacho Bridge Crossing Forcemain Re-alignment										
	Traffic Control										
	Provide additional traffic control along sta 1+80 to sta 3+75										
	- Flagmans, 2-crew	*3*	*Days*		*$ -*	*160.00*	*$ 480.00*		*$ -*	*160.00*	*$ 480.00*
	Provide temporary steel plate	*165*	*LF*		*$ -*	*6.00*	*$ 990.00*	*$ 3.00*	*$ 495.00*	*9.00*	*$ 1,485.00*
	Demo and new Works at Aplacho Bridge										
	Setting of hanging flatform below bridge, 3-crew x 1day	*24*	*MnHrs*		*$ -*	*10.00*	*$ 240.00*		*$ -*	*10.00*	*$ 240.00*
	Demo portion of concrete diaphragm										
	- 3 Laborers x 5Days, chipping works	*120*	*MnHrs*		*$ -*	*10.00*	*$ 1,200.00*		*$ -*	*10.00*	*$ 1,200.00*
	- Equipment, Genset, chipping hammer, concrete cutter	*30*	*Hrs*		*$ -*		*$ -*	*$ 20.00*	*$ 600.00*	*20.00*	*$ 600.00*
	Demo works for concrete wall abutment										
	- 4 Laborers x 2Days, chipping works	*64*	*MnHrs*		*$ -*	*10.00*	*$ 640.00*		*$ -*	*10.00*	*$ 640.00*
	- 1 Excavator w/ operator	*4*	*Hrs*		*$ -*	*16.50*	*$ 66.00*	*$ 70.00*	*$ 280.00*	*86.50*	*$ 346.00*
	- 1 Dumptruck w/ operator	*4*	*Hrs*		*$ -*	*15.00*	*$ 60.00*	*$ 45.00*	*$ 180.00*	*60.00*	*$ 240.00*
	- Equipment, Genset, chipping hammer, concrete cutter	*16*	*Hrs*		*$ -*		*$ -*	*$ 20.00*	*$ 320.00*	*20.00*	*$ 320.00*
	Provide PVC pipe sleeve for 10" Forcemain Pipe (Approximately 10" Lg)	*2*	*EA*	*150.00*	*$ 300.00*	*75.00*	*$ 150.00*		*$ -*	*225.00*	*$ 450.00*
	Provide PVC pipe sleeve for 4" Comm line	*4*	*EA*	*25.00*	*$ 100.00*	*40.00*	*$ 160.00*		*$ -*	*65.00*	*$ 260.00*
	Seal gap between forcemain pipe, comm line and the pipe sleeve at wall abutment only	*18.71*	*LF*	*3.00*	*$ 56.13*	*5.00*	*$ 93.55*		*$ -*	*8.00*	*$ 149.68*
	Forcemain Line - 3										
	Deduct Trench excavation works	*-18.26*	*CY*		*$ -*	*7.50*	*$ (136.94)*	*$ 15.00*	*$ (273.89)*	*22.50*	*$ (410.83)*
	Deduct Selected Fill	*-18.26*	*CY*		*$ -*	*8.00*	*$ (146.07)*	*$ 5.10*	*$ (93.12)*	*13.10*	*$ (239.20)*
	Deduct disposal of excavated excess soil	*-18.26*	*CY*		*$ -*		*$ -*		*$ -*	*-*	*$ -*
	Deduct 20ft concrete encasement	*-2.71*	*CY*	*135.40*	*$ (367.08)*	*65.00*	*$ (176.22)*	*$ 5.00*	*$ (13.56)*	*205.40*	*$ (556.86)*
	Additional 10" dia x 45bend DI Elbow (Materials only)	*2*	*EA*	*220.55*	*$ 441.10*		*$ -*		*$ -*	*220.55*	*$ 441.10*
	Additional installation for 1ea-10" dia x 45 bend elbow	*1*	*EA*		*$ -*	*75.00*	*$ 75.00*		*$ -*	*75.00*	*$ 75.00*
	Additional Concrete Thrust Block	*1*	*EA*	*125.00*	*$ 125.00*	*100.00*	*$ 100.00*		*$ -*	*225.00*	*$ 225.00*
	Survey Works	*1.00*	*LOT*		*$ -*	*1,200.00*	*$ 1,200.00*		*$ -*	*1,200.00*	*$ 1,200.00*
	Forcemain Line - 3 Road Repair										
	Additional saw-cutting of AC pavement	*330*	*LF*		*$ -*	*1.50*	*$ 495.00*	*$ 0.75*	*$ 247.50*	*2.25*	*$ 742.50*
	Additional removal and disposal of AC pavement	*242*	*SY*		*$ -*		*$ -*	*$ 7.00*	*$ 1,694.00*	*7.00*	*$ 1,694.00*
	Additional 3" thk Concrete Pavement	*242*	*SY*	*40.43*	*$ 9,784.06*	*3.00*	*$ 726.00*		*$ -*	*43.43*	*$ 10,510.06*
	Additional 3/4" Friction course	*242*	*SY*	*22.61*	*$ 5,471.62*		*$ -*		*$ -*	*22.61*	*$ 5,471.62*
	Additional AC pavement line markings	*242*	*LF*	*1.25*	*$ 302.50*	*1.50*	*$ 363.00*		*$ -*	*2.75*	*$ 665.50*
					$ -		*$ -*		*$ -*	*-*	*$ -*
	Total Direct (Additive)				***$ 16,213.33***		***$ 6,579.31***		***$ 3,435.93***		***$ 26,228.57***

ACTIVITY AND LOCATION: **GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1**				CONSTRUCTION CONTRACT NO.:						DATE: **Wednesday, July 25, 2018**	
				ESTIMATED BY: **BME & SONS, INC**							
CCR#21REv1 Aplacho Bridge Crossing Forcemain Re-alignment due to Snail Issue				STATUS OF DESIGN:							
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Overhead	*10%*						`			*$ 2,622.86*
	Direct Admin & Supervisory Cost	*3%*									*$ 786.86*
	SUB-TOTAL										***$ 29,638.28***
	Profit	*8%*									*$ 2,371.06*
	SUB-TOTAL										***$ 32,009.34***
	GRT	*4.167%*									*$ 1,333.83*
	TOTAL PROPOSED ADDITIVE COST FOR CCR#21										***$ 33,343.17***

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-1

CCR#22 Provide Drainage Pipe on Electrical HandHole to Infiltration System Due to Water Seepage

CONSTRUCTION CONTRACT NO.:

DATE: **Wednesday, August 08, 2018**

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Provide drainage Pipe from Electrical HandHole to Infiltration due to water seepage										
	Excavation, 18" wide x 3ft deep x 40 ft long	*40*	*LF*		$ -	*4.00*	$ *160.00*	*6.00*	$ *240.00*	*10.00*	$ *400.00*
	Provide 4" PVC drainage pipe	*40*	*LF*	*3.50*	$ *140.00*	*4.00*	$ *160.00*		$ -	*7.50*	$ *300.00*
	Backfilling	*40*	*LF*		$ -	*2.00*	$ *80.00*	*4.00*	$ *160.00*	*6.00*	$ *240.00*
	Compaction	*40*	*LF*		$ -	*2.00*	$ *80.00*	*2.00*	$ *80.00*	*4.00*	$ *160.00*
	Provide pipe penetration on existing handhole	*1*	*EA*		$ -	*60.00*	$ *60.00*		$ -	*60.00*	$ *60.00*
	Seal and restore opening	*1*	*EA*	*25.00*	$ *25.00*	*40.00*	$ *40.00*		$ -	*65.00*	$ *65.00*
	Make Flow Meter Box Water Tight due to water seepage										
	Provide concrete base, 3ft x 3ft x 6" to include concrete, formworks and rebars	*1*	*LOT*	*100.00*	$ *100.00*	*150.00*	$ *150.00*		$ -	*250.00*	$ *250.00*
					$ -		$ -		$ -	-	$ -
					$ -		$ -		$ -	-	$ -
	Total Direct (Additive)				***$ 265.00***		***$ 730.00***		***$ 480.00***		***$ 1,475.00***
	Overhead	*10%*						`			$ *147.50*
	Direct Admin & Supervisory Cost	*3%*									$ *44.25*
	SUB-TOTAL										***$ 1,666.75***
	Profit	*8%*									$ *133.34*
	SUB-TOTAL										***$ 1,800.09***
	GRT	*4.167%*									$ *75.01*
	TOTAL PROPOSED ADDITIVE COST FOR CCR#22										***$ 1,875.10***

EXHIBIT B

COST ESTIMATE

ACTIVITY AND LOCATION:
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2

CCR#4 - Provide Electronic (LED) Road Sign as required by DPW HEP Department

CONSTRUCTION CONTRACT NO.:
S15-008 BDN/WW 11-03

DATE:
August 8, 2018

ESTIMATED BY:
BME & SONS, INC

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
1	*Provide electronic (LED) road sign as additional requirement of DPW HEP department, solar powered*										
2	*- Rental from October 31, 2017 to November 30, 2017*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
3	*- Delivery charges*	*2*	*EA*		*$ -*	*120.00*	*$ 240.00*		*$ -*	*120.00*	*$ 240.00*
4	*- Rental for the month of December 2017*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
5	*- Rental for the month of January 2018*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
6	*- Rental for the month of February 2018*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
7	*- Rental for the month of March 2018*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
8	*- Rental for the month of April 2018*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
9	*- Rental for the month of May 2018*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
10	*- Rental for the month of June 2018*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
11	*- Rental for the month of July 2018*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
12	*- Rental for the month of August 2018*	*2*	*EA*		*$ -*		*$ -*	*$ 984.00*	*$ 1,968.00*	*984.00*	*$ 1,968.00*
13	*- Delivery charges (return)*	*2*	*EA*		*$ -*	*120.00*	*$ 240.00*		*$ -*	*120.00*	*$ 240.00*
	Total Direct (Additive)				***$ -***		***$ 480.00***		***$ 19,680.00***		***$ 20,160.00***
	Overhead	*10%*						`			*$ 2,016.00*
	Direct Admin & Supervisory Cost	*3%*									*$ 604.80*
	SUB-TOTAL										***$ 22,780.80***
	Profit	*8%*									*$ 1,822.46*
	SUB-TOTAL										***$ 24,603.26***
	GRT	*4.167%*									*$ 1,025.22*
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#12										***$ 25,628.48***

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2

CCR#05 Additive Works - Adjustment on Elevation of Forcemain Pipes from sta134+00 to sta137+50 (Response to RFI15) due to existing Storm Drainage Pipe and Install Clean-out in the locations where Pipes are already completely laid out

CONSTRUCTION CONTRACT NO.:

DATE: **Tuesday, July 31, 2018**

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	ADDITIVE WORKS										
	REMOVAL WORKS										
1	*Re-excavation works of flowble fill (sta134+00 to sta134+80)*	41	CY		$ -	6.00	$ 248.53	$ 14.00	$ 579.91	20.00	$ 828.44
2	*Cut and Removal of laid pipes from sta.134+00 to sta134+80 (for adjustment)*	80	LF		$ -	10.00	$ 800.00	$ 3.00	$ 240.00	13.00	$ 1,040.00
	NEW WORKS										
3	*Provide additional 12" dia C900 PVC pipe replacement*	20	LF	28.58	$ 571.60	12.00	$ 240.00	$ 3.00	$ 60.00	43.58	$ 871.60
	Note: Existing in-place pipe from sta134+00 to sta 134+80 was re-use, only additional 1-pc length was added to replace the cut pipe.										
4	*Provide concrete encase for forcemain pipe from sta.134+40 to sta.136+20*										
	- 3000Psi Concrete (Based on actual usage)	45	CY	134.50	$ 6,052.50	25.00	$ 1,125.00		$ -	159.50	$ 7,177.50
	- Reinforcement	0.6	TON	800.00	$ 480.00	800.00	$ 480.00		$ -	1,600.00	$ 960.00
5	*Provide pipe bedding sand t sta.134+00 to sta.134+60*	19.4	TONS		$ -	18.00	$ 349.50		$ -	18.00	$ 349.50
	- Note: Re-use bedding sand on site										
6	*Provide flowble fill*	16.2	CY	110.75	$ 1,792.00	22.50	$ 364.06	$ 5.00	$ 80.90	138.25	$ 2,236.96
7	***Clean-out adjustment***										
	- Re-excavation of Flowable Fill	3.3	CY		$ -	6.00	$ 20.00	$ 14.00	$ 46.67	20.00	$ 66.67
	- Cut and remove protion of existing pipe	1	LOT		$ -	75.00	$ 75.00		$ -	75.00	$ 75.00
	- Provide additional fittings (Dresser Coupling)	1	EA	580.00	$ 580.00	80.00	$ 80.00		$ -	660.00	$ 660.00
	- Provide flowable fill	3.3	CY	110.75	$ 365.48	22.50	$ 74.25	$ 5.00	$ 16.50	138.25	$ 456.23
	DEDUCTIVE WORKS										
8	*Reduce trench excavation works*	-54	CY		$ -	6.00	$ (324.00)	$ 14.00	$ (756.00)	20.00	$ (1,080.00)
9	*Reduce Bedding sand at sta.134+60 to sta. 136+20*	-52	TONS	35.85	$ (1,856.23)	18.00	$ (932.00)		$ -	53.85	$ (2,788.23)
	Total Direct (Additive & Deductive)				**$ 7,985.34**		**$ 2,600.35**		**$ 267.98**		**$ 10,853.66**
	Overhead	10%						`			$ 1,085.37
	Direct Admin & Supervisory Cost	3%									$ 325.61
	SUB-TOTAL										**$ 12,264.64**
	Profit	8%									$ 981.17
	SUB-TOTAL										**$ 13,245.81**
	GRT	4.167%									$ 551.95
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#05										**$ 13,797.77**

COST ESTIMATE

ACTIVITY AND LOCATION:
GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2

CCR#6 - Additive Cost for Hardrock Excavation enountered at Forcemain Sta 126+00 to Sta 127+00

CONSTRUCTION CONTRACT NO.:
S15-008 BDN/WW 11-03

DATE:
Tuesday, July 31, 2018

ESTIMATED BY:
BME & SONS, INC

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Hardrock Excavations using special mechanized equipment Excavator with Breaker:										
1	*Forcemain from Sta 126+00 to Sta 127+00*	*24*	*HRS*		$ -		$ -	*$ 115.00*	*$ 2,760.00*	*115.00*	*$ 2,760.00*
					$ -		$ -		$ -	-	$ -
					$ -		$ -		$ -	-	$ -
					$ -		$ -		$ -	-	$ -
					$ -		$ -		$ -	-	$ -
	Total Direct (Additive)				***$ -***		***$ -***		***$ 2,760.00***		***$ 2,760.00***
	Overhead	*10%*						`			*$ 276.00*
	Direct Admin & Supervisory Cost	*3%*									*$ 82.80*
	SUB-TOTAL										***$ 3,118.80***
	Profit	*8%*									*$ 249.50*
	SUB-TOTAL										***$ 3,368.30***
	GRT	*4.167%*									*$ 140.36*
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#6										***$ 3,508.66***

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2

CCR#07 Wetwell Additional Excavation and Flowable Fill Due to Unsuitable soil Condition per GEO Field Instructions

CONSTRUCTION CONTRACT NO.:

DATE: **Tuesday, July 31, 2018**

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Additional Excavtion and Flowable Fill										
	Additional excavation works to meet hard stable ground surface as per GEO Field instructions	*92.9*	*CY*		*$ -*	*6.00*	*$ 557.49*	*$ 14.00*	*$ 1,300.81*	*20.00*	*$ 1,858.31*
	Disposal of excess soil	*92.9*	*CY*		*$ -*	*5.00*	*$ 464.50*	*$ 7.00*	*$ 650.30*	*12.00*	*$ 1,114.80*
	Total actual poured flowable fill (see HRP delivery receipts)	*135.0*	*CY*	*110.75*	*$ 14,951.25*	*22.50*	*$ 3,037.50*	*$ 5.00*	*$ 675.00*	*138.25*	*$ 18,663.75*
	Less: Estimated volume per SOP	*-41.3*	*CY*	*110.75*	*$ (4,573.98)*	*22.50*	*$ (929.25)*	*$ 5.00*	*$ (206.50)*	*138.25*	*$ (5,709.73)*
					$ -		*$ -*		*$ -*	*-*	*$ -*
	Total Direct (Additive)				***$ 10,377.28***		***$ 3,130.24***		***$ 2,419.61***		***$ 15,927.13***
	Overhead	*10%*						`			*$ 1,592.71*
	Direct Admin & Supervisory Cost	*3%*									*$ 477.81*
	SUB-TOTAL										***$ 17,997.66***
	Profit	*8%*									*$ 1,439.81*
	SUB-TOTAL										***$ 19,437.47***
	GRT	*5.30%*									*$ 809.96*
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#07										***$ 20,247.43***

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2

CCR#8rev1 ADDITIVE WORKS - Additional AC Pavement due to Relocation of Forcemain Line along sta. 104+80 to sta. 114+91 (As per RFI#05) - Rev.01

CONSTRUCTION CONTRACT NO.:

DATE: **Friday, August 24, 2018**

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
19	***Force Main - 2 Road Repair***										
	Provide additional Saw-cutting of existing AC pavements	*404*	*LF*		*$ -*	*1.41*	*$ 569.64*	*$ 0.71*	*$ 286.84*	*2.12*	*$ 856.48*
	Remove and dispose affected AC pavements	*270*	*SY*		*$ -*	*-*	*$ -*	*$ 31.00*	*$ 8,370.00*	*31.00*	*$ 8,370.00*
	Provide additional 3" thk pavements at Route 17	*270*	*SY*	*60.88*	*$ 16,437.60*		*$ -*		*$ -*	*60.88*	*$ 16,437.60*
	Provide 1" hot asphalt friction coarse	*270*	*SY*	*41.00*	*$ 11,070.00*		*$ -*		*$ -*	*41.00*	*$ 11,070.00*
	Provide additional painted line markings	*202*	*LF*	*1.00*	*$ 202.00*	*1.20*	*$ 242.40*		*$ -*	*2.20*	*$ 444.40*
	Temporary Traffic Control										
	Provide Traffic control										
	- Flagman (1day 4 workers during restoration of pavement)	*32*	*Hrs*		*$ -*	*10.00*	*$ 320.00*		*$ -*	*10.00*	*$ 320.00*
	Total Direct (Additive)				***$ 27,709.60***		***$ 1,132.04***		***$ 8,656.84***		***$ 37,498.48***
	Overhead	*10%*						`			*$ 3,749.85*
	Direct Admin & Supervisory Cost	*3%*									*$ 1,124.95*
	SUB-TOTAL										***$ 42,373.28***
	Profit	*8%*									*$ 3,389.86*
	SUB-TOTAL										***$ 45,763.14***
	GRT	*5.30%*									*$ 2,425.45*
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR										***$ 48,188.59***

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2

CCR#09A_Exterior Wall Painting of PS2 Building

CONSTRUCTION CONTRACT NO.:

DATE: **Friday, August 24, 2018**

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Painting of PS2 Building Exterior Walls:										
	Surface preparation by acid washing. Apply one coat primer and 2 coats of exterior waterbase paint finish on building exterior walls and underside of canopy. Owner to select final color (ONE COLOR Only)	*1300*	*SF*			*0.60*	*$ 780.00*		*$ -*	*0.60*	*$ 780.00*
	5 gal pail x 300 sf/gal=1500sf/pail; $110/pail primer	*1*	*pail*	*110.00*	*$ 110.00*		*$ -*		*$ -*	*110.00*	*$ 110.00*
	5 gal pail x 300 sf/gal=1500sf/pail; $112/pail top coat	*2*	*pails*	*112.00*	*$ 224.00*		*$ -*		*$ -*	*112.00*	*$ 224.00*
	Pick-up and delivery	*1*	*lot*	*60.00*	*$ 60.00*		*$ -*		*$ -*	*60.00*	*$ 60.00*
	Misc (acid, brush, roller stick & cover)	*1300*	*sf*	*0.05*	*$ 65.00*		*$ -*		*$ -*	*0.05*	*$ 65.00*
	Total Direct				***$ 459.00***		***$ 780.00***		***$ -***		***$ 1,239.00***
	Overhead	*10%*						`			*$ 123.90*
	Direct Admin & Supervisory Cost	*3%*									*$ 37.17*
	SUB-TOTAL										***$ 1,400.07***
	Profit	*8%*									*$ 112.01*
	SUB-TOTAL										***$ 1,512.08***
	GRT	*5.30%*									*$ 80.14*
	TOTAL PROPOSED AMOUNT FOR CCR#09A										***$ 1,592.22***

ACTIVITY AND LOCATION: **GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2**				CONSTRUCTION CONTRACT NO.:						DATE: **Tuesday, August 07, 2018**	
				ESTIMATED BY: **BME & SONS, INC**							
CCR#09B_Exterior Wall Painting of PS2 Building Concrete Wall Fence EXTERIOR Side Only				STATUS OF DESIGN:							
Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Exterior Wall Painting of Concrete Wall Fence (Exterior Side Only):										
	Surface preparation by acid washing. Apply one coat primer and 2 coats of exterior waterbase paint finish on building Concrete Wall Fence EXTERIOR Side only. Owner to select final color. ONE COLOR Only	*2652*	*SF*			*0.60*	*$ 1,591.20*		*$ -*	*0.60*	*$ 1,591.20*
	5 gal pail x 300 sf/gal=1500sf/pail; $110/pail primer	*2*	*pail*	*110.00*	*$ 220.00*		*$ -*		*$ -*	*110.00*	*$ 220.00*
	5 gal pail x 300 sf/gal=1500sf/pail; $112/pail top coat	*4*	*pails*	*112.00*	*$ 448.00*		*$ -*		*$ -*	*112.00*	*$ 448.00*
	Pick-up and delivery	*1*	*lot*	*60.00*	*$ 60.00*		*$ -*		*$ -*	*60.00*	*$ 60.00*
	Misc (acid, brush, roller stick & cover)	*2652*	*sf*	*0.05*	*$ 132.60*		*$ -*		*$ -*	*0.05*	*$ 132.60*
	Total Direct				***$ 860.60***		***$ 1,591.20***		***$ -***		***$ 2,451.80***
	Overhead	*10%*						`			*$ 245.18*
	Direct Admin & Supervisory Cost	*3%*									*$ 73.55*
	SUB-TOTAL										***$ 2,770.53***
	Profit	*8%*									*$ 221.64*
	SUB-TOTAL										***$ 2,992.18***
	GRT	*5.30%*									*$ 158.59*
	TOTAL PROPOSED AMOUNT FOR CCR#09B										***$ 3,150.76***

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2

CCR#09C_Exterior Wall Painting of PS2 Building Concrete Wall Fence INTERIOR Side Only

CONSTRUCTION CONTRACT NO.:

DATE: **Tuesday, August 07, 2018**

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Exterior Wall Painting of Concrete Wall Fence (Interior Side Only):										
	Surface preparation by acid washing. Apply one coat primer and 2 coats of exterior waterbase paint finish on building Concrete Wall Fence INTERIOR Side only. Owner to select final color. ONE COLOR Only	*2652*	*SF*			*0.60*	*$ 1,591.20*		*$ -*	*0.60*	*$ 1,591.20*
	5 gal pail x 300 sf/gal=1500sf/pail; $110/pail primer	*2*	*pail*	*110.00*	*$ 220.00*		*$ -*		*$ -*	*110.00*	*$ 220.00*
	5 gal pail x 300 sf/gal=1500sf/pail; $112/pail top coat	*4*	*pails*	*112.00*	*$ 448.00*		*$ -*		*$ -*	*112.00*	*$ 448.00*
	Pick-up and delivery	*1*	*lot*	*60.00*	*$ 60.00*		*$ -*		*$ -*	*60.00*	*$ 60.00*
	Misc (acid, brush, roller stick & cover)	*2652*	*sf*	*0.05*	*$ 132.60*		*$ -*		*$ -*	*0.05*	*$ 132.60*
	Total Direct				***$ 860.60***		***$ 1,591.20***		***$ -***		***$ 2,451.80***
	Overhead	*10%*						`			*$ 245.18*
	Direct Admin & Supervisory Cost	*3%*									*$ 73.55*
	SUB-TOTAL										***$ 2,770.53***
	Profit	*8%*									*$ 221.64*
	SUB-TOTAL										***$ 2,992.18***
	GRT	*5.30%*									*$ 158.59*
	TOTAL PROPOSED AMOUNT FOR CCR#09C										***$ 3,150.76***

BME & SONS INC.

GENERAL CONTRACTOR & EQUIPMENT RENTAL

P.O. Box 24402, GMF, Barrigada, Guam 96921 * Tel: (671) 632-3338 * 637-5498 *

EMAIL: bvm@bmesons.com, dhbme@bmesons.com bernam@bmesons.com

August 7, 2018

To: **Miguel C. Bordallo, PE**
General Manager
Guam Waterworks Authority
688 Route 15, Mangilao GU 96913

Thru: **Rizaldy P. Cortez, PE, PMP, LEED**
SSFM International, Guam General Manager

Reference: Baza Garden Wastewater Cross-Island Pumping and Conveyance (Phase II)
GWA Project No. S15-008-BND

Subject: CCR#10 Provide Valve Box Cover and Riser in ForceMain Hydrotest Valves

Dear Sir,

As requested by GWA, we are pleased to submit our change order cost proposal (CCR#10) to provide valve box cover and riser in 4 gate valves installed and used for hydro testing purposes to include all labor, materials, equipment and supervision in the amount of **Six Thousand Six Hundred Ninety Nine and 66/100 Dollars ($6,699.66).**

Performance Period Required: 6 weeks procurement + 2 weeks Installation (56 calendar Days) for the date of NTP.

Thank you and your kind consideration will be greatly appreciated. Should you have any question, please feel free to contact us or email us at above email addresses.

Very Truly Yours,

Digitally signed by Daniel Hernandez
DN: cn=Daniel Hernandez, o=Project Manager, ou=BME, email=dhbme@guam.net, c=US
Date: 2018.08.07 16:53:03 +10'00'

Daniel A. Hernandez
BME & Sons, Inc.
Project Manager

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2

CCR#10_Provide Gate Valve Cover and Riser at 4 each Gate Valves used in HydroTesting

CONSTRUCTION CONTRACT NO.:

ESTIMATED BY:

BME & SONS, INC

STATUS OF DESIGN:

DATE:

Tuesday, August 07, 2018

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Provide Gate Valve Cover and Riser:										
	Provide 12" PVC Riser approximately 6 feet long x 4 + 24LF total (needs 2 lengths x 20 ft)	*2.0*	*Lengths*	*668.40*	*$ 1,336.80*		*$ -*		*$ -*	*668.40*	*$ 1,336.80*
	- Install PVC Riser approximately 6ft long	*4.0*	*EA*		*$ -*	*100.00*	*$ 400.00*		*$ -*	*100.00*	*$ 400.00*
	Compaction prior to placing concrete collar and gate valve cover	*4.0*	*EA*		*$ -*	*50.00*	*$ 200.00*	*$ 50.00*	*$ 200.00*	*100.00*	*$ 400.00*
	Provide Gate Valve Cover	*4.0*	*EA*	*283.33*	*$ 1,133.32*	*100.00*	*$ 400.00*		*$ -*	*383.33*	*$ 1,533.32*
	Provide concrete collar including rebars and formworks, 5ft x 5ft x 6" thick	*4.0*	*EA*	*150.00*	*$ 600.00*	*250.00*	*$ 1,000.00*		*$ -*	*400.00*	*$ 1,600.00*
					$ -		*$ -*		*$ -*	*-*	*$ -*
	Total Direct (Additive)				***$ 3,070.12***		***$ 2,000.00***		***$ 200.00***		***$ 5,270.12***
	Overhead	*10%*						`			*$ 527.01*
	Direct Admin & Supervisory Cost	*3%*									*$ 158.10*
	SUB-TOTAL										***$ 5,955.24***
	Profit	*8%*									*$ 476.42*
	SUB-TOTAL										***$ 6,431.65***
	GRT	*5.30%*									*$ 268.01*
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#07										***$ 6,699.66***

GWA Work Session - September 18, 2018 - ISSUES FOR DECISION

BME & SONS INC.

GENERAL CONTRACTOR & EQUIPMENT RENTAL

P.O. Box 24402, GMF, Barrigada, Guam 96921 * Tel: (671) 632-3338 * 637-5498 *

EMAIL: bvm@bmesons.com, dhbme@bmesons.com bernam@bmesons.com

August 8, 2018

To: **Miguel C. Bordallo, PE**
General Manager
Guam Waterworks Authority
688 Route 15, Mangilao GU 96913

Thru: **Rizaldy P. Cortez, PE, PMP, LEED**
SSFM International, Guam General Manager

Reference: Baza Garden Wastewater Cross-Island Pumping and Conveyance (Phase II)
GWA Project No. S15-008-BND

Subject: CCR#11 Delete 12" PVC Stand Pipe and Valve Box Cover and Install 30" RCP Stand Pipe and Manhole Cover at Plug Valves Locations (2 Each)

Dear Sir,

We are pleased to submit our change order cost proposal (CCR#11) to delete the 12" stand pipe and valve box cover and install 30" RCP stand pipe with 30" sewer manhole cover in order to access the plug valve control lever/handle in the amount of **Three Thousand Eleven and 93/100 Dollars ($3,011.93) t**o include all labor, materials, equipment and supervision.

Performance Period Required: 6 weeks procurement + 2 weeks Installation (56 calendar Days) for the date of NTP.

Thank you and your kind consideration will be greatly appreciated. Should you have any question, please feel free to contact us or email us at above email addresses.

Very Truly Yours,

Digitally signed by Daniel Hernandez
DN: cn=Daniel Hernandez, o=Project Manager, ou=BME, email=dhbme@guam.net, c=US
Date: 2018.08.08 09:14:36 +10'00'

Daniel A. Hernandez
BME & Sons, Inc.
Project Manager

ACTIVITY AND LOCATION:

GWA BAZA GARDEN WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM PH-2

CCR#11_Provide 30" RCP Pipe Riser and Sewer Manhole Cover in Plug Valve Locations (2 Each)

CONSTRUCTION CONTRACT NO.:

DATE: **Tuesday, August 07, 2018**

ESTIMATED BY: **BME & SONS, INC**

STATUS OF DESIGN:

Item No.	ITEM DESCRIPTION	QUANTITY		MATERIAL COST		LABOR COST		EQUIPMENT COST		ENGG ESTIMATE	
		QTY	UNIT	UNIT $	TOTAL	UNIT $	TOTAL			UNIT $	TOTAL
	Provide 30" RCP Pipe Riser and Sewer Manhole Cover in Plug Valves Locations (2 each):										
	Provide 30" RCP Pipe	*2*	*Lengths*	*1,101.00*	*$ 2,202.00*		*$ -*		*$ -*	*1,101.00*	*$ 2,202.00*
	- Delivery (from HRP to jobsite)	*1*	*LOT*		*$ -*		*$ -*	*$ 300.00*	*$ 300.00*	*300.00*	*$ 300.00*
	- Cut and provide notch to fit installation required (2 man in one day)	*2*	*EA*		*$ -*	*180.00*	*$ 360.00*	*$ 65.00*	*$ 130.00*	*245.00*	*$ 490.00*
	- Install RCP Riser approximately 6ft long	*2*	*EA*		*$ -*	*180.00*	*$ 360.00*	*$ 65.00*	*$ 130.00*	*245.00*	*$ 490.00*
	Provide concrete collar including rebars and formworks, 5ft x 5ft x 6" thick	*2*	*EA*	*150.00*	*$ 300.00*	*250.00*	*$ 500.00*		*$ -*	*400.00*	*$ 800.00*
	Deduct:										
	- 12" PVC SDR35 Riser x 6ft long	*-12*	*LF*	*6.27*	*$ (75.24)*	*75.00*	*$ (900.00)*		*$ -*	*81.27*	*$ (975.24)*
	- 12" Valve Box cover & Frame	*-2*	*EA*	*168.75*	*$ (337.50)*	*100.00*	*$ (200.00)*		*$ -*	*268.75*	*$ (537.50)*
	- Concrete Collar, 3ft x 3ft x 6"	*-2*	*EA*	*75.00*	*$ (150.00)*	*125.00*	*$ (250.00)*		*$ -*	*200.00*	*$ (400.00)*
	Total Direct (Additive)				***$ 1,939.26***		***$ (130.00)***		***$ 560.00***		***$ 2,369.26***
	Overhead	*10%*									*$ 236.93*
	Direct Admin & Supervisory Cost	*3%*									*$ 71.08*
	SUB-TOTAL										***$ 2,677.26***
	Profit	*8%*									*$ 214.18*
	SUB-TOTAL										***$ 2,891.44***
	GRT	*5.30%*									*$ 120.49*
	TOTAL PROPOSED ADDITIVE AMOUNT FOR CCR#07										***$ 3,011.93***

GUAM WATERWORKS AUTHORITY

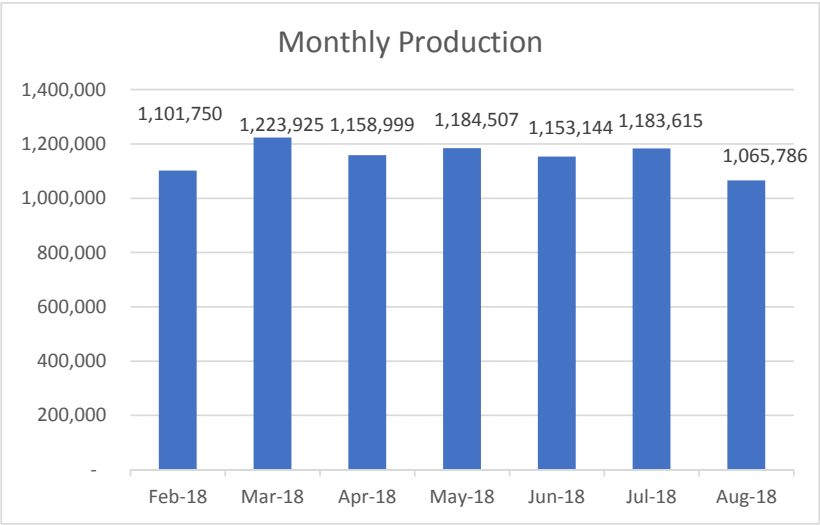
General Manager's Report
GWA Work Session, September 18, 2018

Operations Update

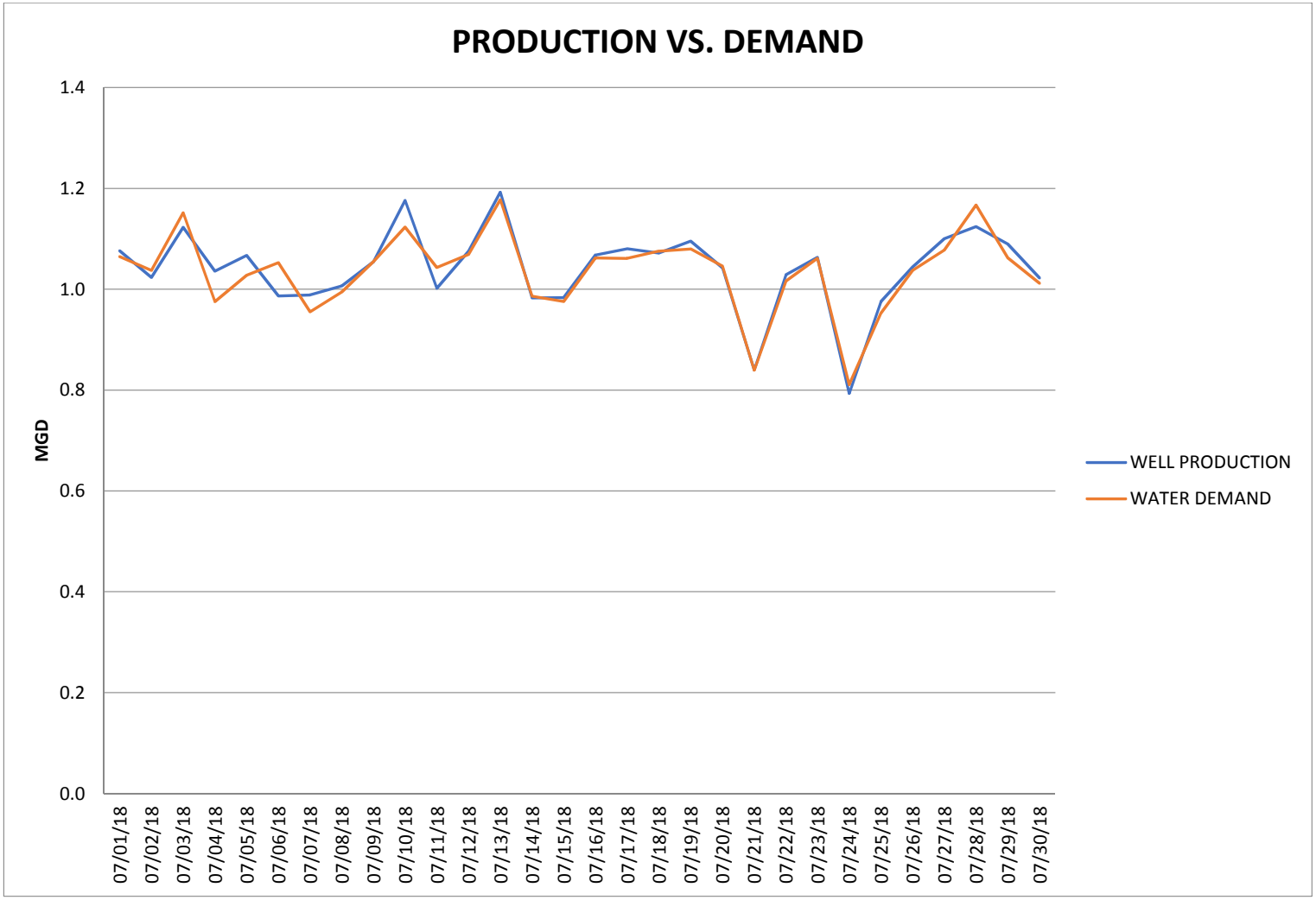
Production

Monthly Production Summary - August 2018				
Deep Wells			35.5	MGD
	Active wells =	94 of 120		
	Avg days in operation =	31.00 days		
	Total Production =	1,065,786 Kgals		
Springs			0.00	MGD
	Avg days in operation =	0 days	*placed on standby	
	Total Production =	0 Kgals		
Ugum Surface Water Plant			-	MGD
	Avg days in operation =	31 days		
	Total Production =	0 Kgals		
Tumon Maui Well			-	MGD
	Avg days in operation =	31 days		
	Total Production =	0 Kgals		
		1,065,786 Kgals	35.5	MGD

DW Status as of 8/31/2018	
Active	94
Grounded motor	3
Out of commission	11
Secured, PFOs	2
Standby	10
TOTAL	120

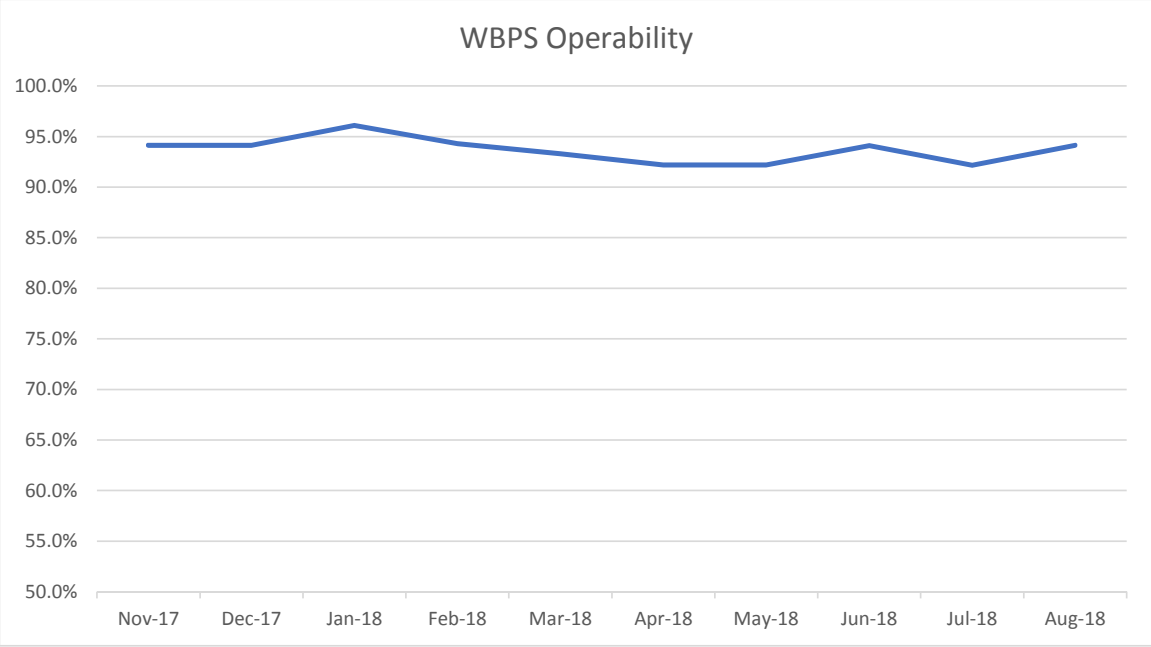


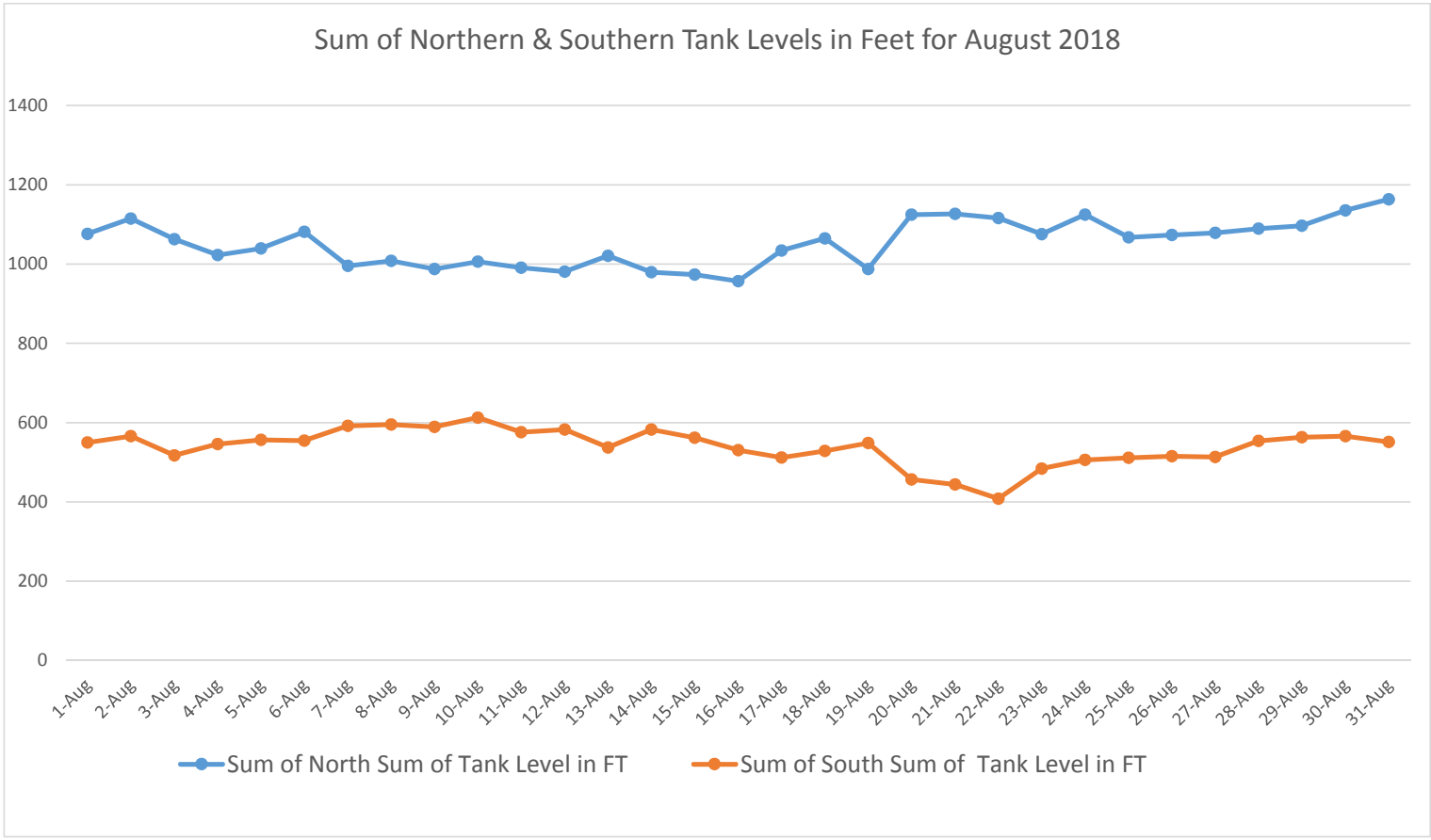
Tumon Maui Well Production vs. Demand for July 2018



Distribution

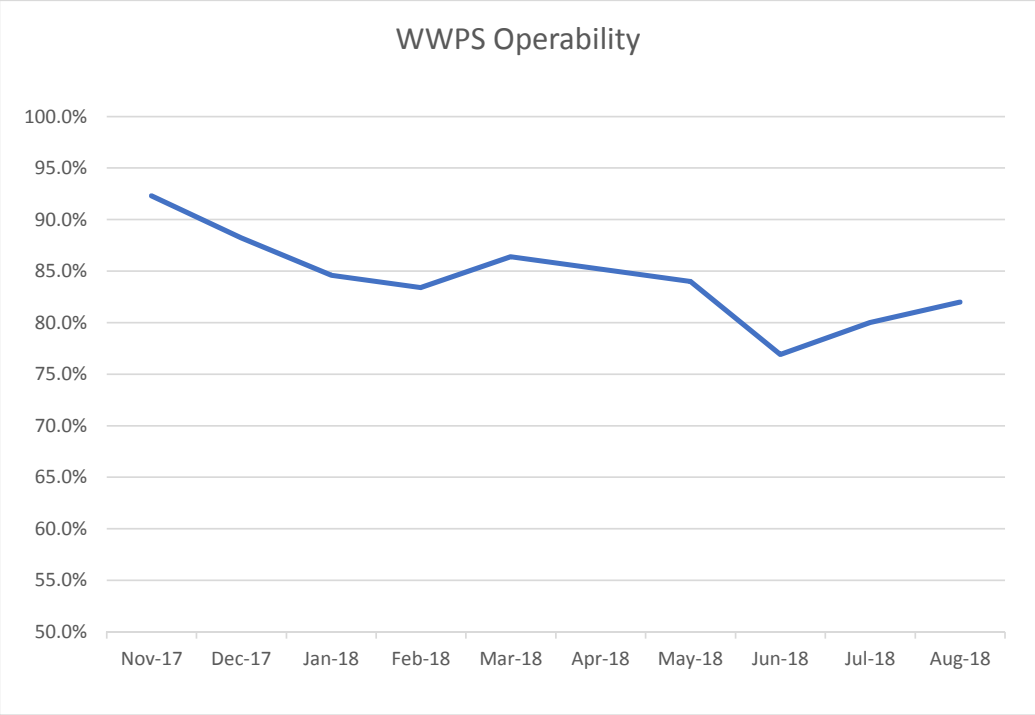
Monthly Distribution Summary - August 2018					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	11	21	19	90.5%
	Central	7	15	14	93.3%
	Southern	7	15	15	100.0%
		25	51	48	94.1%




Sum of Northern & Southern Tank Levels in Feet for August 2018
1400
1200
1000
800
600
400
200
0
1-Aug
2-Aug
3-Aug
4-Aug
5-Aug
6-Aug
7-Aug
8-Aug
9-Aug
10-Aug
11-Aug
12-Aug
13-Aug
14-Aug
15-Aug
16-Aug
17-Aug
18-Aug
19-Aug
20-Aug
21-Aug
22-Aug
23-Aug
24-Aug
25-Aug
26-Aug
27-Aug
28-Aug
29-Aug
30-Aug
31-Aug
Sum of North Sum of Tank Level in FT
Sum of South Sum of Tank Level in FT

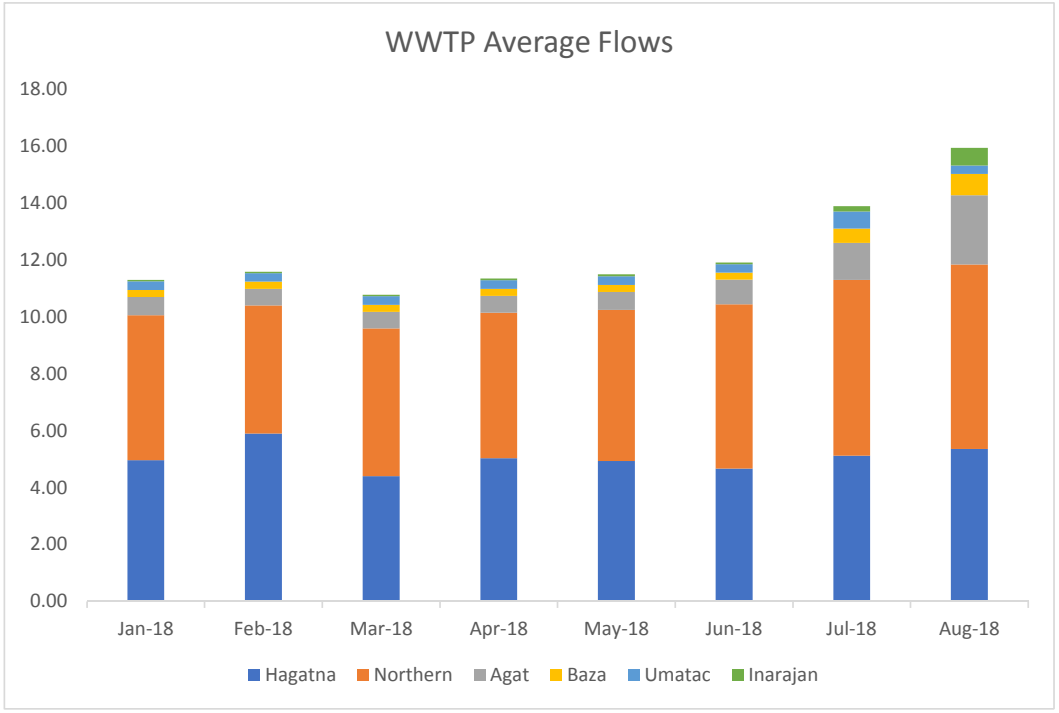
Wastewater Collections

Monthly Collections Summary - August 2018					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	42	80.8%
	Central	29	63	50	79.4%
	Southern	27	57	49	86.0%
		78	172	141	82.0%

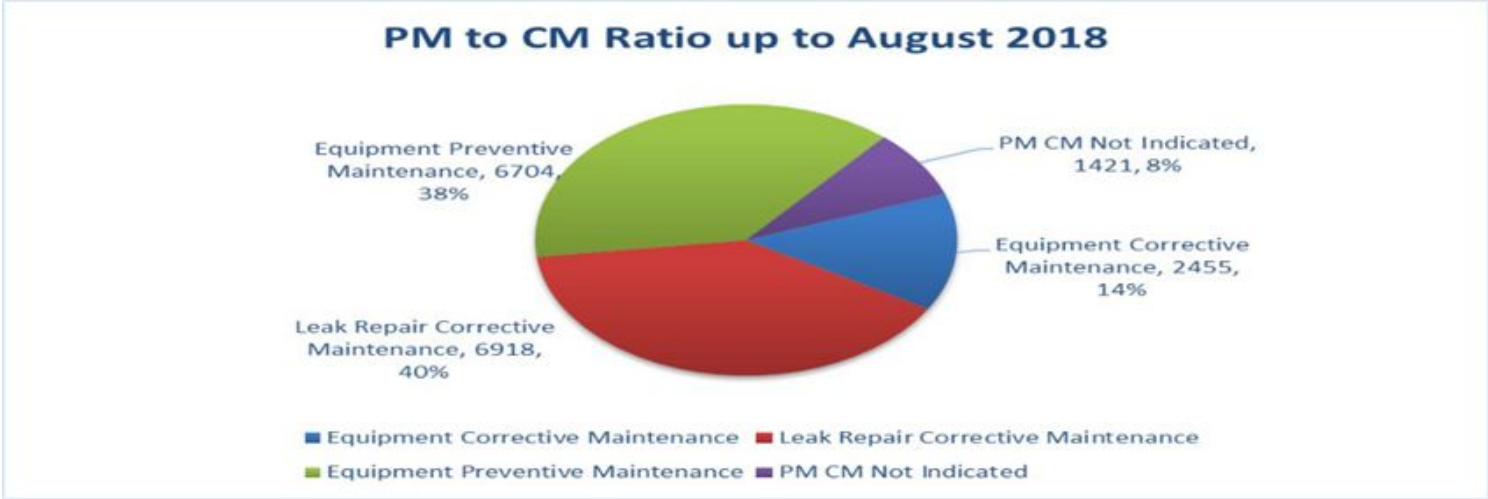


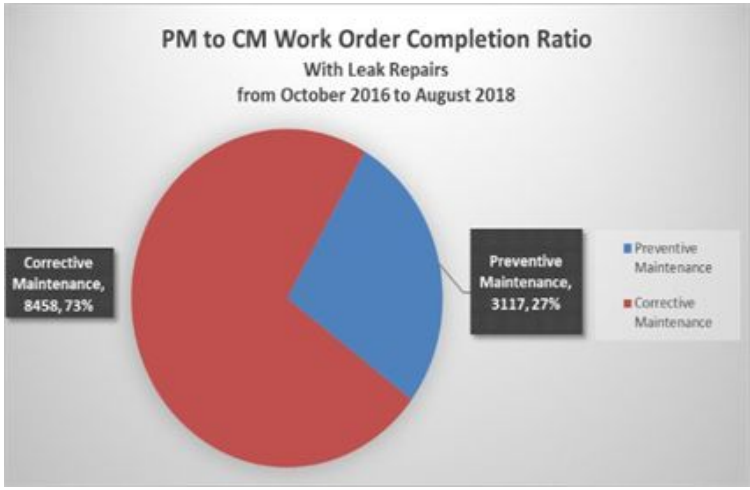
Wastewater Treatment

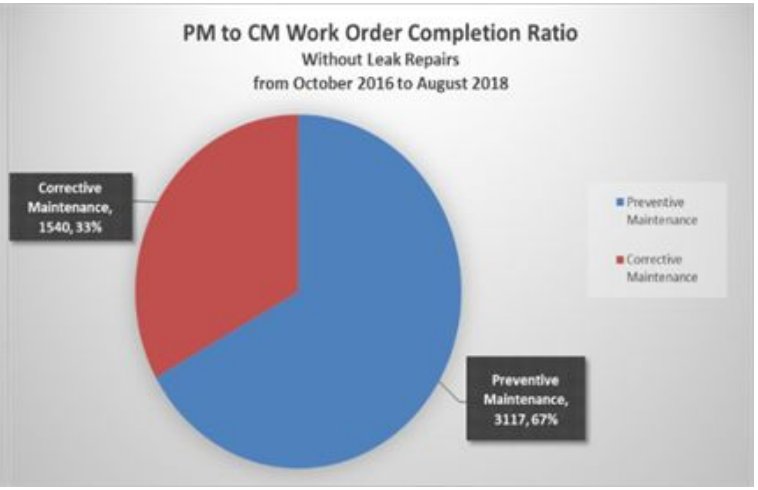
Monthly Wastewater Treatment Summary - August 2018				
WW Treatment Plants - Flows				
	Facility	**Avg. Daily Flows (MGD)**	**Sludge (lbs)**	**Sludge Disp. ($)**
	Hagatna	5.36	633,780	$ 57,040
	Northern	6.49	724,660	$ 65,219
	Agat	2.43		
	Baza	0.75		
	Umatac	0.30		
	Inarajan	0.62		
		15.95	1,358,440	$ 122,260



Asset Management for August 2018







Operational Issues

Production & Distribution

- Leak repair
  - Crews maintaining performance - As of July 31st, there were less than 24 pending repairs
    - 92% reduction from 2017-2018 Maximum of 283 pending
    - 87% reduction from 2018 Maximum of 179 pending
  - IFB for advanced remote leak detection services has been advertised
- WSCC –
  - SCADA equipment and installation requirements on-going
  - Have been coordinating the activation of new Yigo / Astumbo tanks
  - Reservoir levels have been steadily increasing
  - Deep wells placed on standby has increased to 10 (and 11 units out-of-commission).
- Pump and motor inventories okay; additional procurement up for CCU approval
- GWA Crane Repair –new cable installation complete – load test 8/22/18

Wastewater Collection & Treatment

- CCTV & Collections System:
  - Planning department assisting CCTV Crews to revise completed reports to meet appropriate industry standards
  - SSES and CCTV-based repairs to collection lines (95%) and SMHs (10%) are being conducted by Ops personnel
- Pump stations
  - Working to address pump operability issues
  - Minimum pump and motor inventory levels finalized (similar to effort with deep-wells)
  - Engineering providing support for specifications and performance points on all pumps prior to finalizing procurement
  - Critical spares and replacements procurement on-going
- Treatment Plants
  - Hagatna WWTP
    - Centrifuges: New PLC installed; programming on-going.
  - Northern WWTP
    - Both centrifuges back in operation
  - Agat-Santa Rita WWTP
    - Solids process commissioning completion pending – centrifuge #2
    - Critical process facilities all operating

- U-M WWTP
  - Work on-going at the site
  - Significant delays have occurred because of USF&W / EPA permitting issues
- Baza Gardens
  - Work on-going for all 3 phases
  - Anticipated completion is now Sep 30th
  - Delay letter has been sent to USEPA

Meters for month of August 2018

COMPLETED FIELD ACTIVITY JAN 2017 THRU AUG 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	May-18	Jun-18	Jul-18	Aug-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	84	1299	797	1489	13236	478
GWA - Meter Exchange	393	179	220	276	482	353	501	807	1526	1039	452	259	239	1086	2120	121	121	1056	1248	1125	13603	211
GWA - Verify Zero Report	30	124	114	94	96	402	261	199	550	89	82	169	356	106	117	69	13	2	2	1	2876	0
GWA - Verify Low Usage	0	0	0	2	37	36	196	488	657	202	127	612	858	1122	1055	463	19	5	3	6	5888	0
TOTAL:	453	312	343	743	1360	878	1351	2237	3733	2337	1095	1418	2203	3283	4505	2082	237	2362	2050	2621	35603	689

# 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	671	544	1159	1216	13593	
# OF BACKBILLINGS APPLIED AS PER FINANCE REPORTS:	0	0	0	20	122	84	29	111	219	80	77	4	136	23	323	48	75	20	30	N/A	1401	$ 928,379.83
# OF FIELD CREW PERFORMING CHANGE OUTS:	19	10	13	9	21	21	14	24	35	28	28*	28*	5	13	2	2	2	28	17	25		
# 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	4	1	13	9	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	0	0	2	2	2		
# OF TEST FACILITY PERSONNEL TESTING METERS:	2	2	2	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	1	2		
# OF ACCOUNTANTS CALCULATING BACK BILLS:	0	0	0	2	3	2	2	3	3	2	2	2	2	2	2	2	2	2	2	N/A		
TOTAL:	30	18	22	22	38	37	31	45	58	50	48	48	20	32	11	10	7	47	31	34		

*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

Project resumed June 04 2018; added 2 hrs per weekday field work on June 18, 2018

REMAINING ACTIVE BADGER LP MODELS AS OF AUG 31, 2018: 18067

PURCHASE DATE	COUNT	
2012	8798	14413 EXPIRED WARANTY
2013	5615	
Feb-14	120	3654 ACTIVE WARANTY
Mar-14	1	
Apr-14	2084	
Jun-14	70	
Aug-14	1379	
TOTAL:	18067	

Marbo (Andy-South) Wells – Status

- Involuntary reversion appears imminent; GWA Counsel transmitted draft easement documents to GSA for consideration with DoD;
- No updates - Waiting on response from GSA
- Meeting requested by GWA for October 2018

One Guam Update

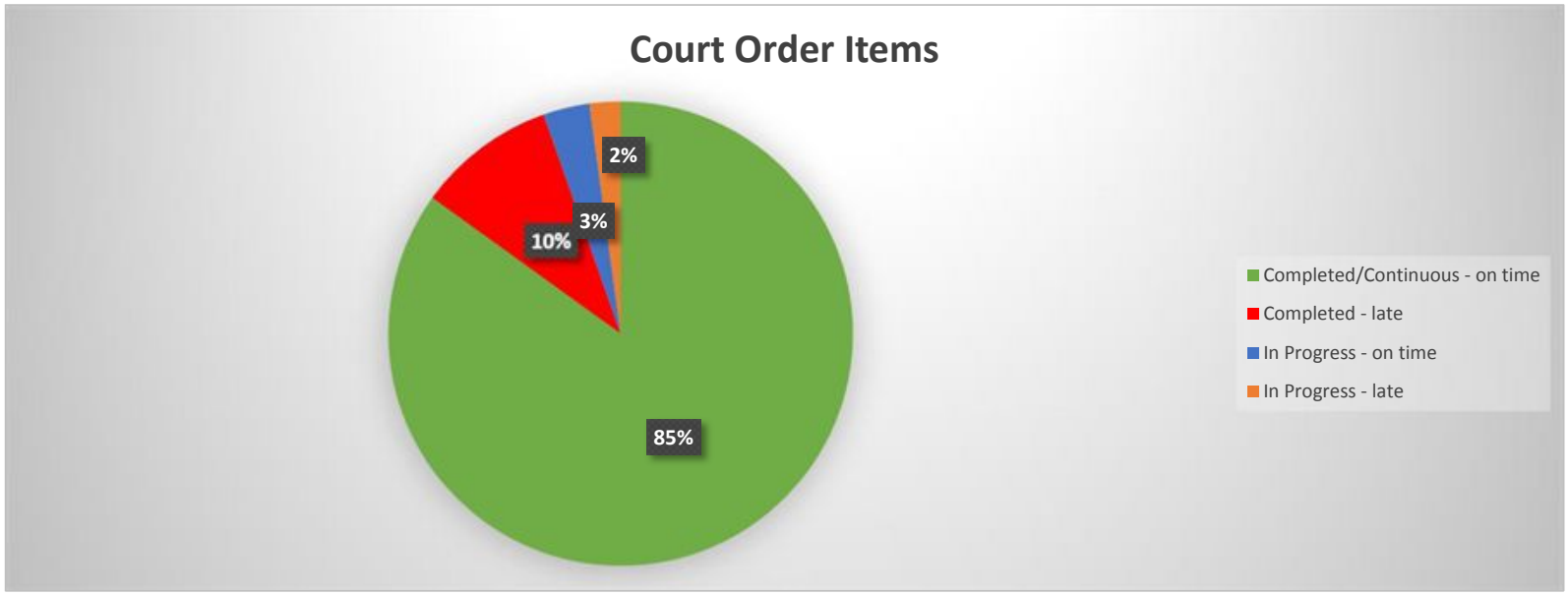
- Tumon Maui Well:
  - Quarterly Inspection conducted – no issues of concern.
- Santa Rosa Tank:
  - NAVFACMAR CO will brief Andersen MSG (Missions Support Group) commander, and Civil Engineering Squad (CES) commander, and the General regarding the MOU for the Santa Rosa Tank project. Due to busy schedules, it will probably be around the middle of September. MOU will be updated.
- Agat-Santa Rita WWTP
  - Cynthia Blas stated that Karianne Camacho is proposing if GWA will agree to an in-kind consideration, which would be a one-time cleaning if the cost estimate doesn't exceed $16,700, getting full value of the cleaning project, then the IBTF can maintain it afterwards. The area is still under GWA's license so GWA can lease it to IBTF for them to maintain it.
  - The signed letter, removing "per annum", hasn't come out of the base office still; like to include the counter-offer.
- OEA Projects
  - Observation Wells:
    - Maria Lewis will find out if DoD's Legal can go to San Francisco to attend the Guam Water & Wastewater Intergovernmental Support Team face to face or be able to send a Legal representative already in California.
- Training and Collaboration
  - AWWA HIWPS will be providing additional training for operators in the next few months.
- 30-Other
  - Utilis (satellite-based leak detection)
    - DOD is interested in the Utilis project.
  - Data Sharing SOP/MOU
    - In final draft stage. Waiting on review from Air Force.

- Connection by Developer to Navy/Murray Road
  - Pending SHPO; Maria Lewis will keep on top of it.
- TMW Inspection
  - Ron Topasna provided the operations reports to Maria Lewis.
  - Fence repair reported to Navy
- Marbo Land where GWA Wells reside
  - DoD made a request to GSA & awaiting to hear back from them. GWA gave the metes & bounds to parcel it out; want an easement long term & not an annual renewal.
- Cabras Island Water Lines
  - Maria Lewis stated that the water lines of GWA & DoD are parallel. DoD doesn't have any facilities there that require water, so Maria Lewis can highly recommend to transfer the lines to GWA. Miguel Bordallo stated that he will evaluate the situation first.
- Navy Raw Water Lines
  - GWA asked about tapping into the Navy raw water lines, as this was brought up before. DOD is reviewing this request. There is time to pursue this.

- 30-Other
  - Data Sharing SOP/MOU
    - Vangie Lujan received Miguel Bordallo's and DOD's comments for inclusion. Expected completion will be September.

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:
  - 09/11-12/2018 Umatac PS 13 (headworks) - Generator tagged out - spill outside MH
  - 09/11/2018 Ypaopao PS - spilling wetpit – No Generator
  - 09/11/2018 Machanao PS - spill outside MH - No Generator
  - 09/11/2018 Agat Generator-Fuel Ran out - spill outside MH
  - 09/11/2018 Umatac PS 17 - High I & I - spill outside MH
  - 09/12/2018 Agat - MH behind the Fire Station - High I & I
  - 09/12/2018 Hamburger Road Force Main Break
  - 09/13/2018 Machanao PS - GPA Gen removed-spill outside MH
  - 09/17/2018 Harmon, Behind Cost-U-Less, MH spill, FOG

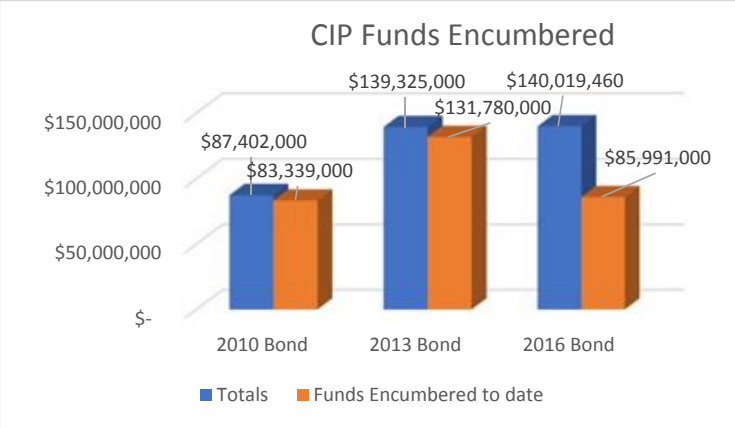
CIP Summary

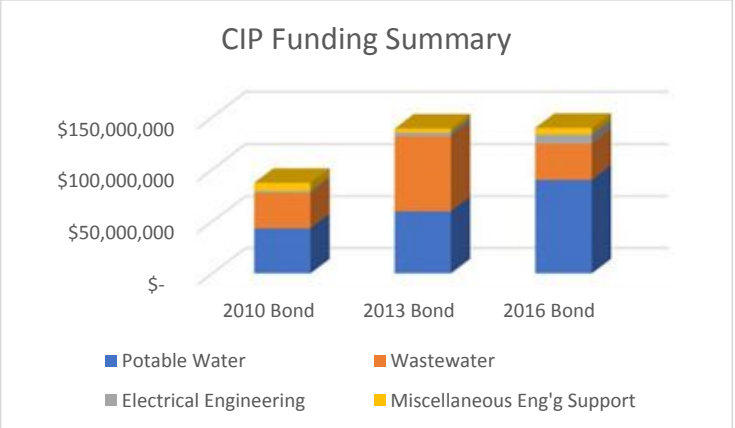
CIP Summary - Project Encumbrance

	2010 Bond		2013 Bond		2016 Bond			
	Funded	Complete	Funded	Complete	Funded	Complete	Total CIP Projects	%
Potable Water	28	17	21	8	20	1	35	49%
Wastewater	16	13	7	4	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	14	37	3	71	100%
% of Total CIP by Fund Source	72%		52%		52%			

CIP Summary - Project Amounts

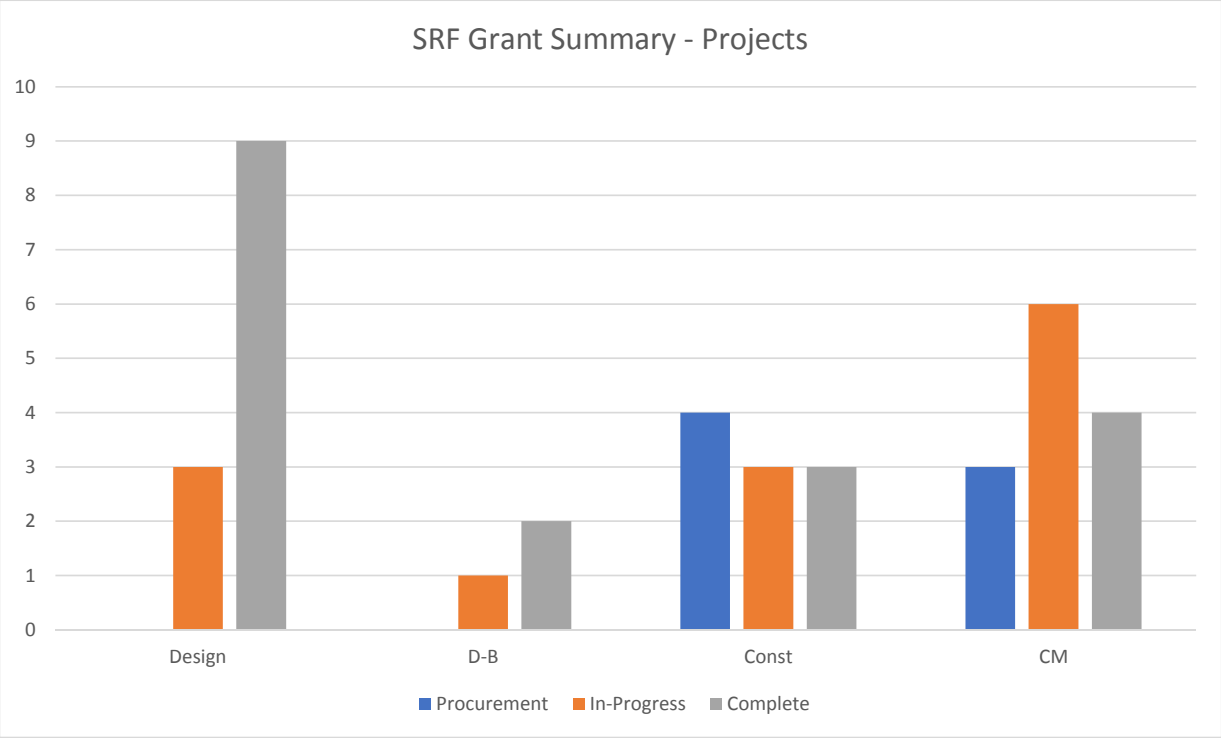
	2010 Bond		2013 Bond		2016 Bond			
	Funded	%	Funded	%	Funded	%	Total CIP Projects	%
Potable Water	$ 41,903,305	48%	$ 58,317,117	42%	$ 64,647,830	46%	$ 164,868,252	45%
Wastewater	$ 36,009,577	41%	$ 73,837,883	53%	$ 60,227,170	43%	$ 170,074,630	46%
Electrical Engineering	$ 1,748,118	2%	$ 3,395,000	2%	$ 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	$ 83,339,000	95%	$ 131,780,000	95%	$ 85,991,000	61%		
% of Total CIP Funding	23.8%		38.0%		38.2%			





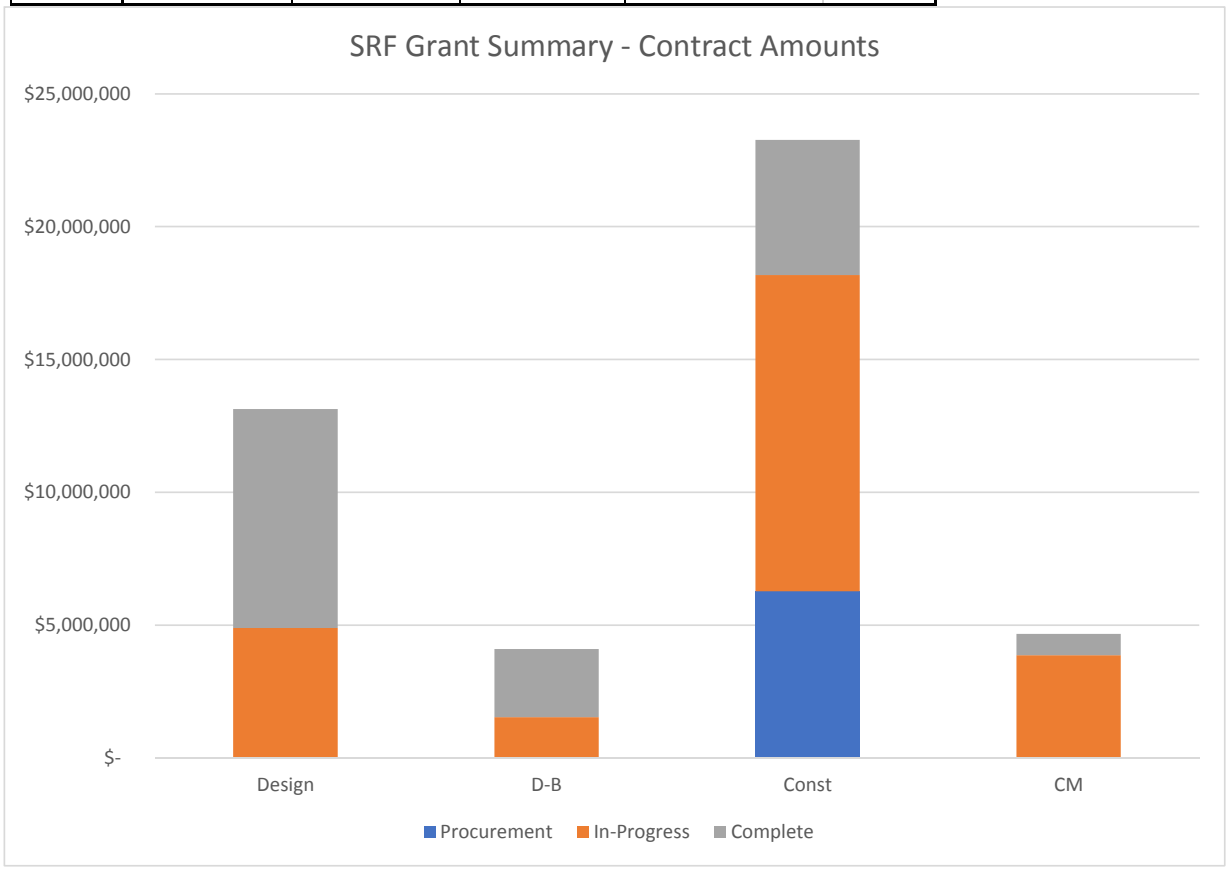
SRF Grant Summary

SRF Grant Summary - Projects					
	Procurement	**In-Progress**	**Complete**	**Totals**	**%**
Design	0	3	9	12	32%
D-B	0	1	2	3	8%
Const	4	3	3	10	26%
CM	3	6	4	13	34%
Totals	7	13	18	38	
%	18%	34%	47%		



SRF Grant Summary - Contract Amounts

	Procurement	In-Progress	Complete	Totals	%
Design	$ -	$ 4,892,286	8,249,328	$ 13,141,614	29%
D-B	$ -	$ 1,542,979	$ 2,565,238	$ 4,108,217	9%
Const	$ 6,275,783	$ 11,902,507	$ 5,086,130	$ 23,264,420	51%
CM	$ -	$ 3,877,036	$ 802,243	$ 4,679,279	10%
Totals	$ 6,275,783	$ 22,214,808	$ 16,702,939	$ 45,193,530	
%	14%	49%	37%		



OEA Grant Summary

- NDWWTP Upgrades
  - 60% design submittal scheduled for Sep 24th.
  - Sitework bid package to be issued Sep 12th
  - Workshop on 60% Design – October 18th – 19th
  - Vertical bid package planned for issuance Mar 2019

- Outfall Diffuser:
  - Re-bid package issued
  - Pre-bid Conference August 22nd
  - Bids expected September 11th

- Sewer Line Interceptor Design-Build
  - Contract Award / NTP issued
  - Design and prep work have started
  - Design submittal expected in October
  - Construction start expected in January

- NGLA Observation wells – Design work completed
  - Bid package drawings and specs under review by GWA
  - Permitting issues being resolved and permits being obtained by PM/CM
  - Bid package to be issued once permits approved – expected in Mar 2019

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 – Deed circulated for signatures
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	30% - completed May 60% - expected Sep	On-target	Project design schedule has been revised / delayed
NEPA Analysis and Determination	Feb-17	Pending	Delayed	USEPA received SHPO concurrence; OEA to review EPA EA
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	

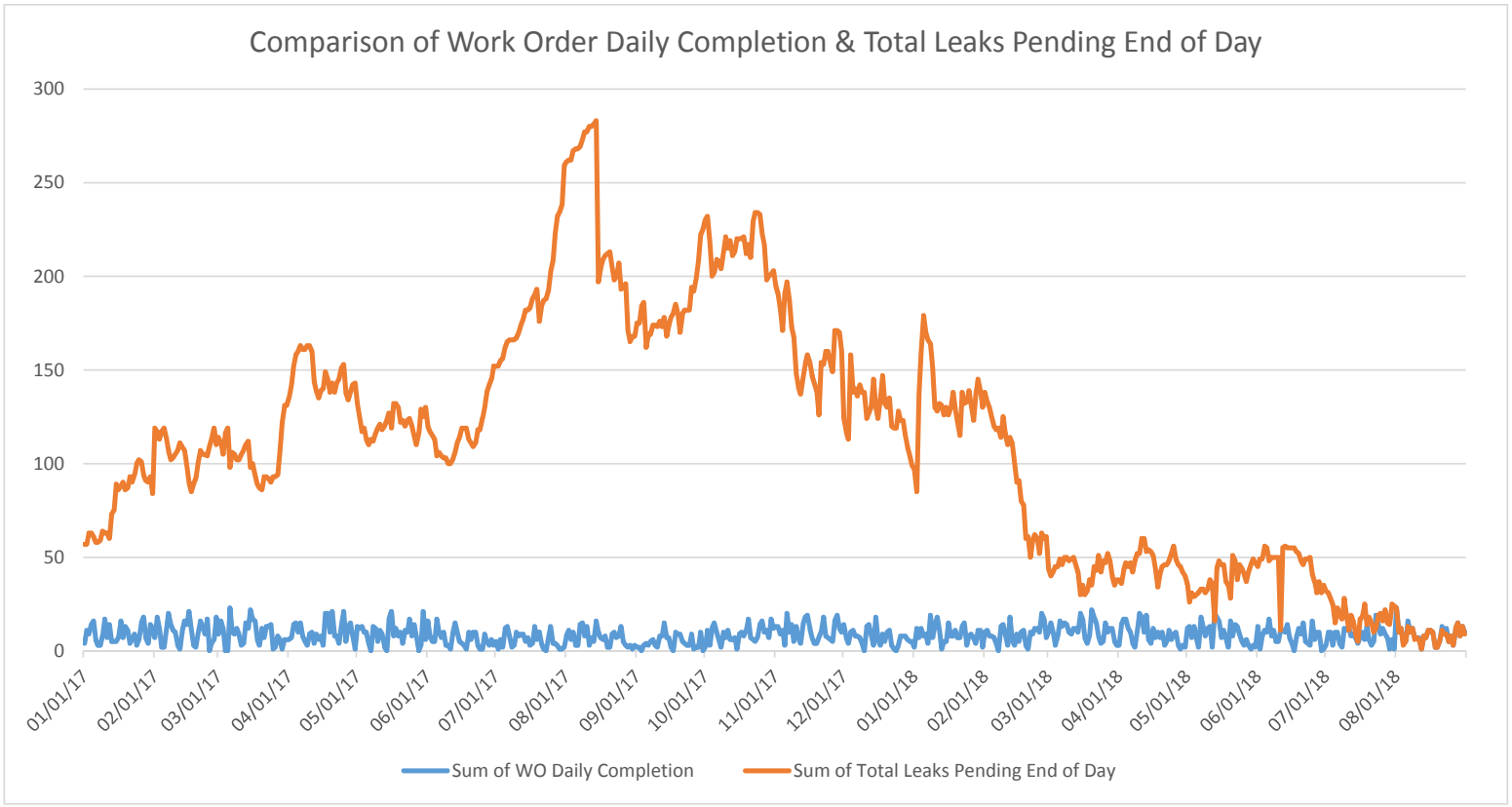
Land Acquisition Summary

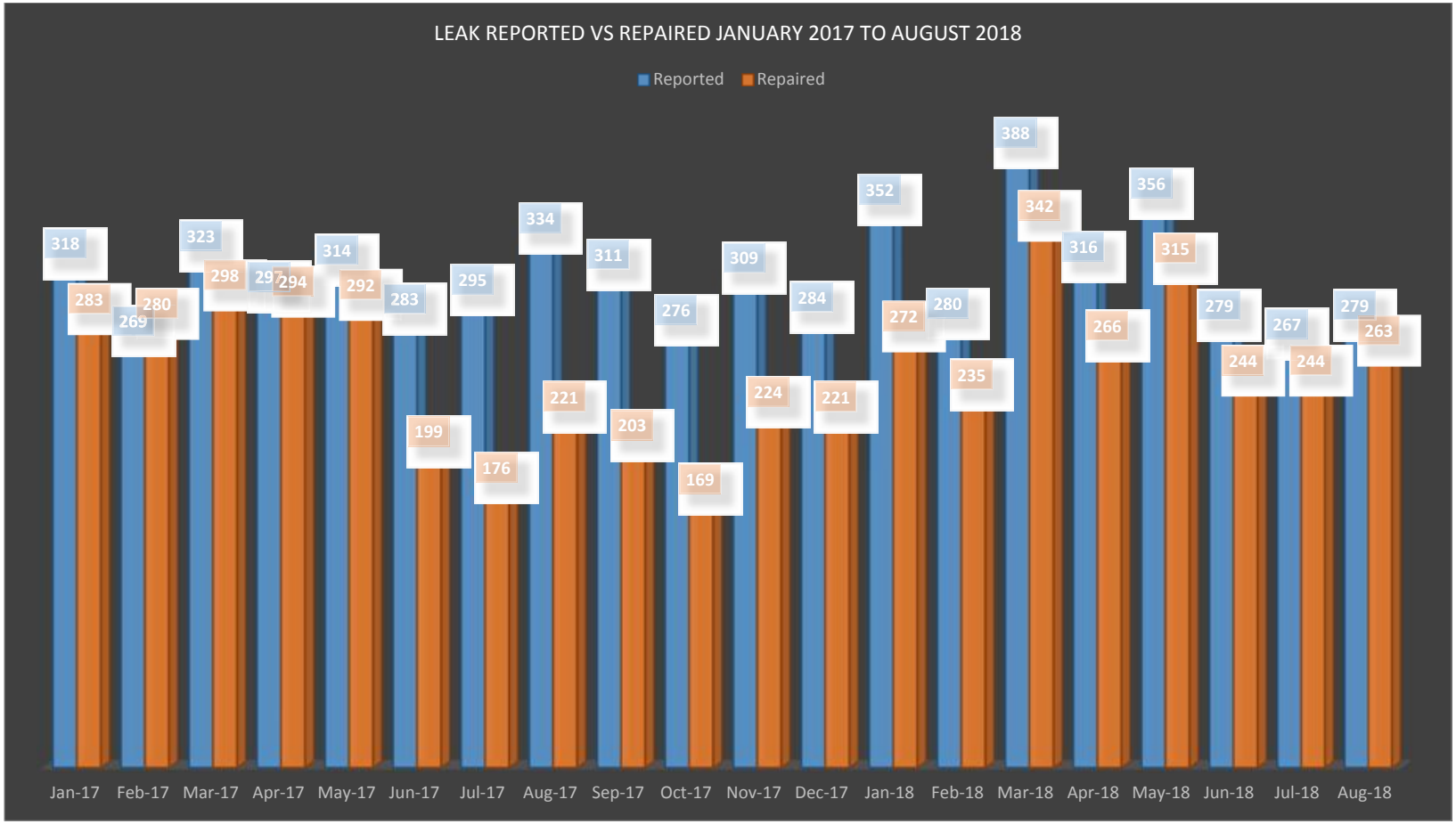
GWA Facility	Location	Gov. or Private Property	Land Acquisition Status
Tanks	Ugum	Private	Letter of Decisions mailed to private property owners 09/07/2018
	Astumbo	Gov't. - CLTC	GWA and DLM working together on Land Registration process. Pending Notification of surrounding lot owner information from DLM
	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	Grant Deed submitted to Security Title for Escrow closing 08/31/18
Deep Wells	AG-12	Dept. of Agriculture/Manhita Farms	Land Registration has been approved by Superior Court of Guam. Pending release and recordation of the Decree Establishing Title at DLM. DCA will be submitting Retracement Survey Check Print Map to DLM for review and comments 07/13/18
	Y-8	Gov't. - CLTC	Grant Deed submitted for GM Signature 09/05/18
Booster Pump Station	Agfayan	Private	Denial Letter received from private property owner on Lot 61-R2, Inarajan 06/07/18. Sent 2nd follow up request to DLM Director on request for authorization on archeological testing for L28, B19, T3734, Inarajan 08/13/18.
Sewer Pump Stations	2nd Adjacent Property to Southern Link	Private	Land Purchase and Sale Agreement sent to GM for review and approval 09/07/18
Asan Springs	Asan	Federal	License Agreement for Asan Springs facility that fall on Dept. of Park Services property currently under DOI review

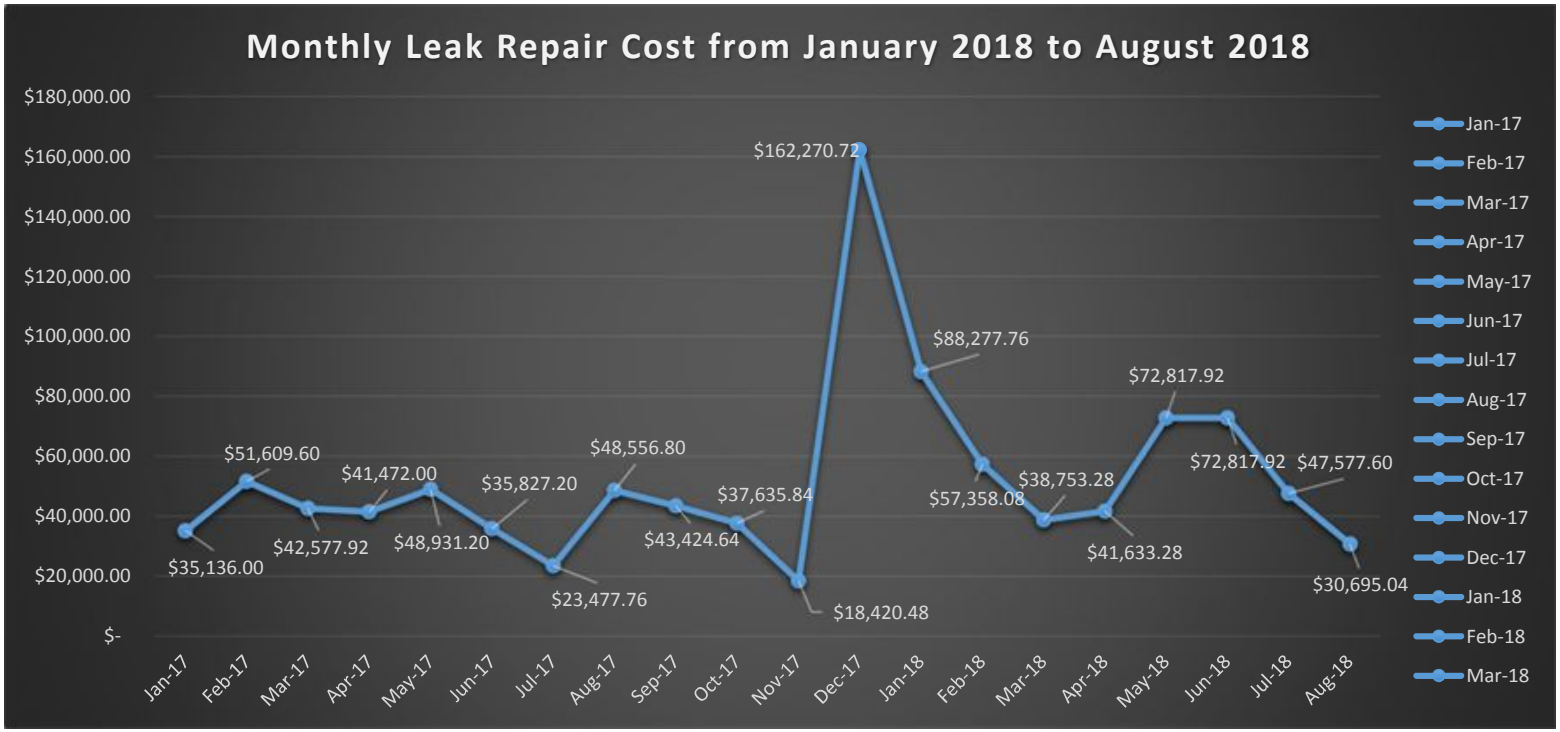
NRW – Update

- Water Loss Control Program activities are on-going
    - Review of latest numbers is underway.
    - Production meter replacement program is under design 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. Grant application was submitted for this pilot project
    - DOI Grant application has been approved for training and equipment.

Leak Repair Summary for August 2018




LEAK REPORTED VS REPAIRED JANUARY 2017 TO AUGUST 2018
Reported
Repaired
318
283
269
280
323
298
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
356
315
279
244
267
244
279
263
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
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May-18
Jun-18
Jul-18
Aug-18



Assumptions:

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

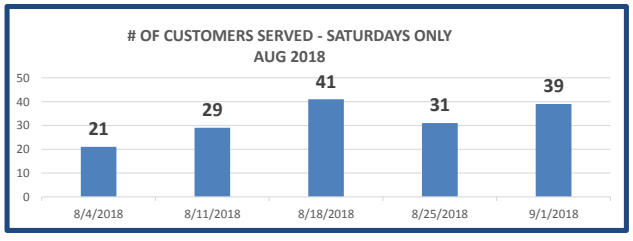
GWA Utility Services Division
Monthly Status Report
Month ending Aug 31, 2018

UTILITY SERVICES DIVISION ACTIVITIES:	WEEKLY AVERAGE JULY 2018	JULY 2018 MONTHLY TOTAL	WEEK ENDING: 8/4/2018	WEEK ENDING: 8/11/2018	WEEK ENDING: 8/18/2018	WEEK ENDING: 8/25/2018	WEEK ENDING: 9/1/2018	WEEKLY AVERAGE AUG 2018	AUG 2018 MONTHLY TOTAL
Collections Unit									
I. Number of accounts cut for nonpayment:	55	220	0	86	67	75	110	68	338
II. Number of accounts restored for nonpayment:	49	196	9	47	41	58	69	45	224
III. Number of No water reports responded to:	2	9	3	1	3	6	3	3	16
IV. Number of Secure/Unsecure valve reports responded to:	1	4	0	2	1	1	1	1	5
V. Number of Verify reads responded to:	0	0	0	0	0	0	0	0	0
VI. Number of new pay plans negotiated for **active** accounts :	180	718	148	192	217	188	201	189	946
VII. Number of active pay plans negotiated and ongoing :	1997		1816	1946	2140	2325	2451	2136	
VIII. Number of **inactive** accounts with a payment arrangement:	0		3	3	3	4	4	3	
IX. Number of broken payment plans:	72	289	74	62	23	3	75	47	237
Customer Service Unit									
I. Service Delivery Points:									
a. GBN Public Service Building – Fadian									
i. Total Customers Assisted :	214	857	259	239	224	245	262	246	1229
ii. Total Abandoned Requests :	12	48	19	10	16	13	28	17	86
iii. Average Wait Time:	6 minutes		5 minutes	5 minutes	11 minutes	7 minutes	5 minutes	7 minutes	
iv. Average Service Time:	12 minutes		11 minutes	11 minutes	11 minutes	10 minutes	10 minutes	11 minutes	
v. Breakdown by request type:									
1. Apply for water	44	174	79	55	57	54	50	59	295
2. Restore water cut for non payment	14	56	2	28	8	11	17	13	66
3. Terminate Water	14	56	26	12	9	16	22	17	85
4. Copy of Bill	35	139	38	38	38	47	27	38	188
5. Billing Dispute	44	174	51	43	43	55	56	50	248
6. Billing Dispute follow up	3	10	4	3	4	4	4	4	19
7. General Questions & Other	31	122	26	24	45	33	48	35	176
8. Report a water leak	1	3	2	1	1	1	2	1	7
9. Report water theft	0	1	0	0	0	0	1	0	1
10. Payment Arrangement	27	107	35	37	24	26	35	31	157
b. Julale Satellite Office – Hagatna									
i. Total Customers Assisted :	231	923	257	242	263	220	232	243	1214
ii. Total Abandoned Requests :	9	35	10	5	8	9	4	7	36
iii. Average Wait Time:	7 minutes		7 minutes	4 minutes	8 minutes	6 minutes	5 minutes	6 minutes	
iv. Average Service Time:	10 minutes		9 minutes	8 minutes	10 minutes	9 minutes	10 minutes	9 minutes	
v. Breakdown by request type:									
1. Apply for water	45	180	64	62	54	50	52	56	282
2. Restore water cut for non payment	8	32	2	10	14	6	9	8	41
3. Terminate Water	20	79	25	16	19	17	21	20	98
4. Copy of Bill	62	247	76	48	61	47	49	56	281
5. Billing Dispute	40	160	39	35	44	57	45	44	220
6. Billing Dispute follow up	1	2	5	0	2	2	1	2	10
7. General Questions & Other	25	101	28	31	37	22	40	32	158
8. Report a water leak	1	5	0	2	0	0	1	1	3
9. Report water theft	0	0	0	0	2	0	0	0	2
10. Payment Arrangement	29	115	23	43	38	24	26	31	154
c. Upper Tumon Satellite Office – Upper Tumon									
i. Total Customers Assisted :	316	1265	334	332	309	353	386	343	1714
ii. Total Abandoned Requests :	9	35	18	15	16	16	32	19	97
iii. Average Wait Time:	6 minutes		17 minutes	10 minutes	13 minutes	9 minutes	14 minutes	13 minutes	
iv. Average Service Time:	9 minutes		13 minutes	11 minutes	13 minutes	13 minutes	12 minutes	12 minutes	
v. Breakdown by request type:									
1. Apply for water	68	272	119	93	87	79	122	100	500
2. Restore water cut for non payment	11	45	3	12	10	24	24	15	73
3. Terminate Water	29	117	35	24	24	38	36	31	157
4. Copy of Bill	72	287	61	59	56	62	64	60	302
5. Billing Dispute	70	280	66	63	58	92	76	71	355
6. Billing Dispute follow up	3	10	4	3	1	1	2	2	11
7. General Questions & Other	38	150	34	44	47	43	41	42	209
8. Report a water leak	3	13	4	4	7	1	5	4	21
9. Report water theft	0	0	0	2	0	0	0	0	2
10. Payment Arrangement	38	152	31	44	27	40	36	36	178

GWA Utility Services Division
Monthly Status Report
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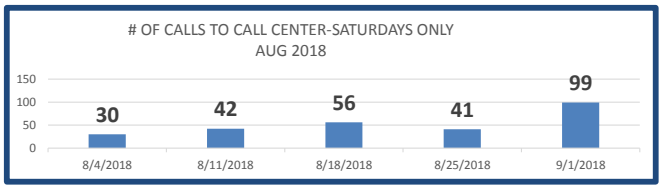
UTILITY SERVICES DIVISION ACTIVITIES:	WEEKLY AVERAGE JULY 2018	JULY 2018 MONTHLY TOTAL	WEEK ENDING: 8/4/2018	WEEK ENDING: 8/11/2018	WEEK ENDING: 8/18/2018	WEEK ENDING: 8/25/2018	WEEK ENDING: 9/1/2018	WEEKLY AVERAGE AUG 2018	AUG 2018 MONTHLY TOTAL
d. Customer Call Center									
i. Calls Recieved :	1100	4401	1080	1268	1236	1038	1513	1227	6135
ii. Calls Immediately Answered :	688	2750	753	777	817	804	979	826	4130
iii. Calls Abandoned	42	167	43	84	55	46	59	57	287
iv. Calls Handled by Voice mail:	371	1482	284	407	363	188	474	343	1716
v. Average duration of calls answered	19 minutes		5 minutes	4.5 minutes	5 minutes	4 minutes	4 minutes	5 minutes	
vi. Breakdown by request type:									
1. Apply/Terminate info.	118	470	30	25	25	21	25	25	126
2. Automated Telphone Call	106	425	17	30	35	16	58	31	156
3. Balance Inquiry	74	295	130	99	92	112	120	111	553
4. Call Back	123	491	32	89	76	53	83	67	333
5. Dispatch	101	402	25	30	28	27	65	35	175
6. Dispute	4	15	10	7	9	4	10	8	40
7. Follow up	37	146	43	65	55	48	58	54	269
8. General Questions & Other	23	93	121	125	133	124	190	139	693
9. GWA Staff	24	97	130	126	105	120	98	116	579
10. No Water	22	89	18	20	24	12	44	24	118
11. Online/Phone App Help	47	188	28	29	23	56	25	32	161
12. Pay by Phone	7	29	136	121	177	189	165	158	788
13. Pay Plan	10	39	63	118	121	77	99	96	478
14. Restore Non-payment	17	67	0	40	23	34	36	27	133
15. Secure/Unsecure Valve	31	122	9	2	7	5	4	5	27
16. Voice Mail	54	215	45	32	40	18	53	38	188
17. Water leak	34	136	15	4	8	8	13	10	48
e. Customer Emails:									
i. Emails Recieved :									
1. customers@guamwaterworks.org	35	140	35	33	35	39	32	35	174
Breakdown by request type (email):									
a. Apply for water	3	10	0	0	0	1	1	0	2
b. Terminate Water	2	8	3	3	2	1	1	2	10
c. Copy of Bill	1	5	2	0	3	4	1	2	10
d. Billing Dispute & follow up	8	33	5	7	5	5	6	6	28
e. General Questions & Other	13	53	20	15	17	19	15	17	86
f. Report a water leak	2	8	1	1	1	1	5	2	9
g. Report water theft	0	0	0	0	0	0	0	0	0
h. Online services inquiry	6	23	4	7	7	8	3	6	29
2. gwaservesme@guamwaterworks.org (realtors and prop m	0	0	0	0	0	0	0	0	0
ii. Emails Replied (both):	29	114	36	30	35	26	25	30	152

	AVERAGE	8/4/2018	8/11/2018	8/18/2018	8/25/2018	9/1/2018	AVERAGE
f. Saturday Services: 9AM TO 1PM ONLY	32	21	29	41	31	39	32
i. VISITS: Breakdown by request type:							
1. Apply for water	6	11	7	10	6	7	8
2. Restore water cut for non payment	1	0	2	0	0	1	1
3. Terminate Water	2	1	2	2	1	3	2
4. Copy of Bill	10	4	8	10	8	12	8
5. Billing Dispute	5	2	3	6	8	2	4
6. Billing Dispute follow up	0	0	0	0	0	0	0
7. General Questions & Other	2	1	1	4	2	3	2
8. Report a water leak	0	0	1	1	0	0	0
9. Report water theft	0	0	0	0	0	0	0
10. Payment Arrangement	7	2	5	8	6	11	6



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ii. CALLS TO CALL CENTER (Saturday services only):			8/4/2018	8/11/2018	8/18/2018	8/25/2018	9/1/2018		
			30	42	56	41	99		



Dispute Resolution & Document Control

			8/4/2018	8/11/2018	8/18/2018	8/25/2018	9/1/2018		
I. Dispute Resolution:									
a. Number of disputed accounts resolved:	10	40	6	18	9	5	5	9	43
b. Number of disputed accounts under review:	178	712	178	178	178	178	178	178	890
II. Document Control:									
a. Number of field activities posted :	344	1374	214	314	381	455	340	341	1704
b. Number of field activities pending:	409	1634	609	834	826	657	644	714	3570

Disconnect/Reconnect Unit

I. Number of field activities received:	237	949	371	289	264	236	321	296	1481
II. Number of field activities completed:	259	1035	375	371	291	291	294	324	1622
III.Number of field activities pending field action:	6	22	4	2	1	2	1	2	10

Meter Reading Unit

			8/4/2018	8/11/2018	8/18/2018	8/25/2018	9/1/2018		
I. Number of meters read:									
a. Electronically Read Meters:	7387	29548	7554	8759	13637	10194	2734	8576	42878
b. Manually Read Meters:	35	141	38	39	47	39	29	38	192
i. Unread meters (Meters scheduled to be read but not read):	44	176	29	53	68	69	5	45	224
ii. Number of data logs received:	27	107	31	30	36	19	20	27	136
iii. Number of data logs retrieved:	25	100	24	35	47	10	33	30	149
iv. Number of data logs pending field action:	26	103	21	19	8	16	6	14	70
v. Communication Errors/Reprogramming requests:	2	9	6	4	2	0	6	4	18
vi. Number of estimated readings (for the week):	31	123	24	35	11	26	2	20	98
vii. Reasons for Estimations:									
1. Cant locate meter:	4	16	1	3	3	3	3	3	13
2. Temporary Obstruction	4	16	4	3	2	4	1	3	14
3. Vicious Dog	0	1	2	1	0	0	0	1	3
4. Flooded meter	1	5	8	4	3	12	2	6	29
5. Corrective action requested (database corrections needed)	3	10	2	7	4	3	0	3	16
6. Possible changed out meter:	5	21	6	4	42	5	3	12	60
7. Communication/Programming error (code 92's):	3	13	3	11	5	7	4	6	30
8. Other:	9	36	11	8	9	13	6	9	47
1. Leaks detected on customer's private line:	1224	4897	1115	1141	1771	1165	285	1095	5477
2. Reverse Flow Detected	82	328	85	41	75	128	17	69	346
3. No Usage Detected	428	1713	408	388	660	473	125	411	2054
4. Tamper Code	20	79	23	19	23	18	11	19	94
c. Electronic Read Percentage:	99%		98%	100%	99%	99%	100%	99%	

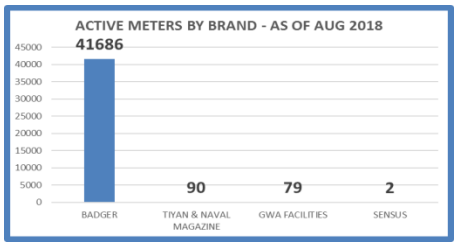
Revenue Protection Unit

I. Number of Inactive Still Consuming Reports rec'd & investigated:	1	2	0	0	0	0	2	0	2
II.Number of Illegal Connection reports rec'd & investigated:	1	4	1	0	0	0	0	0	1

III. Meter Replacement Project – Post 2010 Metron Farnier & Sensus Status Report :

METER TYPE	COUNT
SENSUS	2
METRON FARNIER	0
	2

a. Account & Meter Type Count :



GUAM WATERWORKS AUTHORITY

Engineering Monthly Report
September 2018

Prepared By:
Thomas Cruz, P.E. Chief Engineer

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A. Summary Table of 2010, 2013 and 2016 Bond

Potable Water

CIP #	CIP Description	2010 Bond Allotment	% encumbered	% available	2013 Bond Allotment	% encumbered	% available	2016 Bond Allotment	% encumbered	% available
PW 05-01	Ground Water Disinfection	$ 500,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 05-03	Santa Rita Springs Booster Pump Rehab Phase II	$ -	N/A	N/A	$ 100,000.00	100.00%	0.00%	$ -	N/A	N/A
PW-05-05	"A Series Well Transmission Line	$ 518,143.96	100.00%	0.00%	$ 400,000.00	92.46%	7.54%	$ -	N/A	N/A
PW 05-06	Water Booster Pump Station	$ 500,000.00	100.00%	0.00%	$ 1,861,000.00	99.09%	0.91%	$ 4,139,000.00	0.00%	100.00%
PW 05-07	Meter Replacement Program	$ 10,300,000.00	99.84%	0.16%	$ 999,000.00	99.75%	0.25%	$ 4,501,000.00	3.33%	96.67%
PW 05-08	Barrigada Tank Repair/Replacement	$ 5,450,000.00	99.92%	0.08%	$ 4,987,000.00	99.32%	0.68%	$ 1,013,000.00	0.00%	100.00%
PW 05-09	Leak Detection	$ 200,000.00	100.06%	-0.06%	$ 20,000.00	84.58%	15.42%	$ 1,180,000.00	0.00%	100.00%
PW 05-10	Potable Water System Planning	$ 200,000.00	100.00%	0.00%	$ 624,000.00	100.00%	0.00%	$ 2,276,000.00	38.50%	61.50%
PW 05-11	Implement Ground Water Rule	$ 1,700,000.00	100.00%	0.00%	$ 1,000,000.00	100.00%	0.00%	$ -	N/A	N/A
PW 05-12	Brigade II (Ugum Lift) BPS Upgrade	$ 1,700,000.00	18.03%	81.97%	$ -	N/A	N/A	$ -	N/A	N/A
PW 05-13	Deep Well Rehabilitation	$ 548,000.00	100.00%	0.00%	$ 200,000.00	100.00%	0.00%	$ 250,000.00	44.01%	55.99%
PW 05-14	New Deep Wells at Dow n Hard	$ 638,252.85	76.11%	23.89%	$ 810,000.00	0.00%	100.00%	$ 1,190,000.00	0.00%	100.00%
PW 05-15	Rehabilitation of Asan Springs	$ 900,000.00	37.87%	62.13%	$ -	N/A	N/A	$ -	N/A	N/A
PW 05-16	Master Meters	$ 1,600,000.00	99.44%	0.56%	$ 784,000.00	99.88%	0.12%	$ 3,616,000.00	4.19%	95.81%
PW 09-01	Ugum Water Treatment Plant Intake	$ 700,000.00	99.47%	0.53%	$ 982,000.00	100.00%	0.00%	$ 18,000.00	0.00%	100.00%
PW 09-02	Water Wells	$ -	N/A	N/A	$ 4,200,000.00	54.90%	45.10%	$ 2,500,000.00	0.00%	100.00%
PW 09-03	Water Distribution System	$ 3,174,748.00	100.00%	0.00%	$ 11,151,000.00	95.15%	4.85%	$ 49,000.00	0.00%	100.00%
PW 09-04	Pressure Zone Realignment	$ -	N/A	N/A	$ 431,000.00	99.95%	0.05%	$ 1,141,000.00	64.94%	35.06%
PW 09-06	Central Water Distribution System 2005	$ 900,000.00	91.67%	8.33%	$ -	N/A	N/A	$ -	N/A	N/A
PW 09-08	Mechanical/Electrical Equipment	$ 1,200,000.00	100.00%	0.00%	$ 430,000.00	99.60%	0.40%	$ 100,000.00	0.00%	100.00%
PW 09-09	Water Reservoir Internal/External	$ 2,000,000.00	75.47%	24.53%	$ -	N/A	N/A	$ -	N/A	N/A
PW 09-10	Water Reservoir Internal/External	$ -	N/A	N/A	$ -	N/A	N/A	$ 800,000.00	100.00%	0.00%
PW 09-11	Water System Reservoirs 2005 Improvements	$ 1,050,000.00	100.00%	0.00%	$ 13,878,000.00	99.99%	0.01%	$ 28,350,000.00	55.51%	44.49%
PW 11-01	Distribution System Upgrades	$ 474,159.85	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 11-02	Ugum Water Treatment Plant Reservoir	$ -	N/A	N/A	$ 90,000.00	0.00%	100.00%	$ -	N/A	N/A
PW 12-01	Water Audit Program & Water Loss Control Plan	$ 100,000.00	78.46%	21.54%	$ -	N/A	N/A	$ 1,000,000.00	38.96%	61.04%
PW 12-02	Production Plan / Reduce Navy Purchases	$ 100,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-03	Hydraulic Assessment of Tanks	$ 500,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-04	Agana Heights & Chaot Tanks	$ 4,700,000.00	100.00%	0.00%	$ 3,280,000.00	40.52%	59.48%	$ 1,220,000.00	40.98%	59.02%
PW 12-05	Tank Major Repair Yigo #1, Mangilao #2, Astumbo#1	$ 1,900,000.00	95.16%	4.84%	$ 11,605,000.00	99.99%	0.01%	$ 1,895,000.00	96.15%	3.85%
PW 12-06	Tank Replacement Piti & Hyundai	$ -	N/A	N/A	$ -	N/A	N/A	$ 7,409,830.00	98.52%	1.48%
PW 12-07	Assessment of Malojloj Elevated & Yigo Elevated	$ 200,000.00	100.00%	0.00%	$ 485,117.00	100.00%	0.00%	$ -	N/A	N/A
PW 12-08	Public Water System Asset Inventory/ Condition Assessment	$ 100,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-09	Public Water System GIS & Mapping	$ 50,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 14-01	Fire Hydrant Replacement Program	$ -	N/A	N/A	$ -	N/A	N/A	$ 2,000,000.00	0.00%	100.00%
		$ 41,903,304.66			$ 58,317,117.00			$ 64,647,830.00		

Wastewater

CIP #	CIP Description	2010 Bond Allotment	% encumbered	% available	2013 Bond Allotment	% encumbered	% available	2016 Bond Allotment	% encumbered	% available
WW 05-04	Wastew ater System Planning	$ 1,500,000.00	100.00%	0.00%	$ 651,000.00	100.00%	0.00%	$ 349,000.00	89.68%	10.32%
WW 05-05	Wastew ater Vehicles	$ 235,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 05-07	NDWWTP - Chlorine Tanks	$ 250,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 09-01	Lift station upgrades	$ -	N/A	N/A	$ 946,000.00	70.40%	29.60%	$ 2,404,000.00	12.21%	87.79%
WW 09-06	Wastew ater Collection System Repl/ Rehabilitation	$ 1,105,000.00	99.93%	0.07%	$ 780,000.00	97.11%	2.89%	$ 2,920,000.00	19.02%	80.98%
WW 09-08	Facilities Plan/Design for Baza Gardens WWTP	$ 1,250,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 09-10	Facilities Plan/Design for Agat-Santa Rita WWTP	$ 899,630.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 11-03	Baza Gardens STP Replacement	$ 1,301,947.00	88.43%	11.57%	$ 3,114,883.00	100.00%	0.00%	$ 29,400,170.00	98.99%	1.01%
WW 11-04	Facilities Plan/Design for Umatac-Merizo WWTP	$ 900,000.00	100.00%	0.00%	$ 473,000.00	100.00%	0.00%	$ 527,000.00	47.84%	52.16%
WW 11-08	Agat/Santa Rita STP Replacement	$ 2,218,000.00	99.91%	0.09%	$ 67,200,000.00	98.37%	1.63%	$ 3,000,000.00	51.50%	48.50%
WW 12-01	Northern District WWTP Primary Treatment Upgrade	$ 11,750,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-02	Biosolids Management Plan	$ 200,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-03	Agana WWTP Interim Measures	$ 11,500,000.00	100.00%	0.00%	$ 673,000.00	100.00%	0.00%	$ 827,000.00	0.00%	100.00%
WW 12-04	I&I SSES Southern	$ 800,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-05	I&I SSES Central	$ 850,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-06	I&I SSES Northern	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
WW 12 -07	Umatac Merizo Replacement	$ 250,000.00	100.00%	0.00%	$ -	N/A	N/A	$ 20,800,000.00	99.06%	0.94%
WW 12-08	Wastew ater System GIS & Mapping	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-09	Wastew ater Facility Back Up Pow er	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-10	Wastew ater System Asset Inventory	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
WW 17-01	Wastew ater Sew er System Expansion									
WW 17-02	Northern District WWTP Secondary Treatment Upgrade	$ 1,000,000.00	0.00%	99.04%						
		$ 36,009,577.00			$ 73,837,883.00			$ 60,227,170.00		

Electrical Engineering Support

CIP #	CIP Description	2010 Bond Allotment	% encumbered	% available	2013 Bond Allotment	% encumbered	% available	2016 Bond Allotment	% encumbered	% available
EE 05-02	SCADA Pilot Project	$ 61,950.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
EE 09-01	Wastewater Pumping Station Electrical Upgrade	$ -	N/A	N/A	$ 620,000.00	16.13%	83.87%	$ 100,000.00	0.00%	100.00%
EE 09-02	Electrical Upgrade - Water Wells	$ 354,226.63	100.00%	0.00%	$ 1,500,000.00	100.00%	0.00%	$ 650,000.00	0.00%	100.00%
EE 09-03	Electrical Upgrade - Water Booster	$ -	N/A	N/A	$ 2,000.00	0.00%	100.00%	$ 323,000.00	0.00%	100.00%
EE 09-04	Electrical Upgrade - Water Booster	$ -	N/A	N/A	$ 200,000.00	0.49%	99.51%	$ -	N/A	N/A
EE 09-05	Electrical Upgrade - Other Water	$ -	N/A	N/A	$ 150,000.00	40.47%	59.53%	$ -	N/A	N/A
EE 09-06	SCADA Improvements - Phase I	$ 250,000.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
EE 09-07	SCADA Improvements - Phase 2	$ 1,056,986.00	100.00%	0.00%	$ -	N/A	N/A	$ -	N/A	N/A
EE 09-08	SCADA Improvements - Phase 3	$ 24,955.71	100.00%	0.00%	$ 923,000.00	78.26%	21.74%	$ 1,177,000.00	52.46%	47.54%
EE 09-09	SCADA Improvements - Phase 4	$ -	N/A	N/A	$ -	N/A	N/A	$ 6,500,000.00	52.29%	47.71%
		$ 1,748,118.34			$ 3,395,000.00			$ 8,750,000.00		

Miscellaneous Engineering Support

CIP #	CIP Description	2010 Bond Allotment	% encumbered	% available	2013 Bond Allotment	% encumbered	% available	2016 Bond Allotment	% encumbered	% available
MC 05-01	Laboratory Modernization	$ -	N/A	N/A	$ 1,173,000.00	100.00%	0.00%	$ 1,127,000.00	100.00%	0.00%
MC 05-02	Land Survey	$ 500,000.00	99.94%	0.06%	$ 2,000.00	0.00%	100.00%	$ 1,998,000.00	63.09%	36.91%
MC 09-01	General Plant Improvements	$ 7,241,000.00	99.58%	0.42%	$ 2,600,000.00	82.00%	18.00%	$ 2,769,460.00	54.11%	45.89%
MC 15-01	Information Technology Intergration Improvements							$ 500,000.00	48.81%	51.19%
		$ 7,741,000.00			$ 3,775,000.00			$ 6,394,460.00		

	2010 Bond Allotment	2013 Bond Allotment	2016 Bond Allotment
CIP Water	$ 41,903,304.66	$ 58,317,117.00	$ 64,647,830.00
CIP Wastewater	$ 36,009,577.00	$ 73,837,883.00	$ 60,227,170.00
CIP Electrical	$ 1,748,118.34	$ 3,395,000.00	$ 8,750,000.00
CIP Miscellaneous	$ 7,741,000.00	$ 3,775,000.00	$ 6,394,460.00
	$ 87,402,000.00	$ 139,325,000.00	$ 140,019,460.00

Bond Fund	Construction Fund Amount ($M)	Estimated # of months fund available for use		Total Funds encumbered to date ($M)	% of fund used	Rate of Spending: ($M) per year
2005	$82.930	82	*	$82.930	100.00%	12.14
2010	$87.402	92	**	$83.339	95.35%	10.87
2013	$139.325	55	**	$131.067	94.07%	28.60
2015	$140.019	25		$89.390	63.84%	42.91
	* - End date November 2013 via CCU Resolution 06-FY2014					
	** - Includes month of September 2018					

B. Projects Procurement

Percentage Key:

100%	Approved by GM
99%	Signature required from either Accounting/Legal/GM
98%	Processing engineering service or construction contract (with legal)
95%	Request for CCU approval (GM/engineering)
90%	A/E fee negotiation or contractor bid evaluation (engineering)
80%	Selected A/E or Conducted bid opening (engineering)
70%	Advertised RFP/IFB (engineering)
60%	RFP/IFB Package under legal review
50%	RFP/IFB Package completed (engineering)
Less than 50%	Project Scope of work development in progress

- Red text anywhere indicates a change from the last report.

BOX KEY FOR PROCUREMENT:

(Type of Procurement) (Relevant CIP NO. or Funding Source)	**(Project Title)**	
(Percentage complete for procurement)	**Activities/Notes:** (see percentage key above)	**Consultant** (listed when selected)
Project Description	Summary of project description	

BID PACKAGE PW 09-02	**New Well Construction**	
<50% Complete	**Activities/Notes:** GWA engineering continuing discussion with Dept. of Agriculture and lessee on options of acquisition of property for well site at AG-12. Internal GWA discussions underway for survey and appraisal services as well as continuing services form Designer.	
Project Description:	The project is to construct three new production wells for GWA as well as installation of a water main to connect the new production wells to the Ysengsong Reservoirs.	

RFP PW 09-02	**New Well Construction (Construction Management)**	
<50% Complete	**Activities/Notes:** SOW being developed	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of up to three (3) new production wells for GWA. GWA plans to increase source water production to improve system redundancy that allows for operating the water production wells more effectively. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

BID PACKAGE PW 14-01	**Fire Hydrant Replacement Phase I**	
<50% Complete	**Activities/Notes:** Bid package being prepared.	
Project Description:	The work performed under this project consist of replacing all know dry barrel fire hydrants down to the lateral as well as any defective wet barrel fire hydrant. Where necessary the gate valve for the fire hydrant may also be replaced.	

BID PACKAGE PW 09-03, PW 09-04 AND PW 09-11	**Northern/Southern Tanks (Santa Rita, Santa Rosa and Sinifa) Construction**	
<50% Complete	**Activities/Notes:** Due to design schedule and funding availability, the bid package will be issued for three tanks to be constructed. Anticipate final design to be submitted end of September.	
Project Description:	The work performed under this project procurement shall consist of Construction of a 1MG Santa Rosa reservoir and booster pump station, 1MG Santa Rita reservoir and 1MG Sinifa reservoir. Some piping work off site from the reservoir is also required to ensure the reservoirs functions optimally.	

RFP EE 09-08, EE 09-09	**SCADA Phase A1 Construction Management**	
100% Complete	**Activities/Notes:** Contract fully executed August 24th. NTP issued August 28th, 2018.	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of all SCADA ready instrumentation at the various facilities through Guam. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

RFP PW 09-04, PW 09-11	**Design Services for the Project Pressure Zone Realignment and Tank Repair/Replacement**	
100% Complete	**Activities/Notes:** Contract fully executed August 16th. NTP issued August 22nd, 2018.	
Project Description:	The work performed under this project procurement shall consist of design services for the remaining GWA reservoirs that required major repairs or replacement. The design will also address the required pressure zone realignment throughout the island so as to improve the distribution system functionality. .	

BOX KEY FOR PROJECT:

(Type of Project) (Relevant CIP NO.)	**(Project Title)** **(Contractor or consultant)**	**Start Date:** (month and year)
(Percentage complete for project)	**Activities/Notes:** (brief description of activity)	**Completion Date:** (month and year)
(Court Order Paragraph No.)	(Project type)	
Project Description	Project Description Narrative	

C. CIP Water Section

INSPECTION CIP PW 05-02	**Inspection & Maintenance Repairs to GWA Island-Wide Steel Water Tank Reservoirs Phase 2 (DCA)**	**Start Date:** April 2010
80% Complete	**Activities/Notes:** A/E working on new bid package for by-pass and repairs. GWA ended repair contract portion of project with CoreTech.	**Completion Date:** Anticipate December 2021
CO 38C	Engineering inspection services	
Project Description:	The Court Order requires GWA to inspect all active and in some cases inactive water reservoirs. The inspection results will allow GWA to determine if a reservoir requires repair or replacement.	

DESIGN CIP PW 05-12	**Brigade II BPS Upgrade** **(EM Chen)**	**Start Date:** April 2012
100% complete (Basis of Design) 80% (Design)	**Activities/Notes:** Design firm working to 90% design submittal.	**Completion Date:** Due to property acquisition issues GWA anticipate May 2018
N/A	Engineering design services	
Project Description:	The design project is intended to assess system water supply feed from the north as well as Ugum WTP and the water demands downstream from the Brigade BPS so as to reconfigure the piping into the BPS and resize the pumps to me system head requirements.	

DESIGN CIP PW 12-05	**Yigo and Astumbo 2MG Tank Design Project (Lyons)**	**Start Date:** September 2013
99% complete	**Activities/Notes:** Design firm to provide RFI support during the construction.	**Completion Date:** January 2016
CO 9 (b)(4)	Engineering design services	
Project Description:	Develop the construction documents for two (2) 2.0 million-gallon (MG) nominal capacity concrete reservoirs in the Yigo service zones and one (1) 2.0 MG reservoir in the Astumbo service area. The design services will consist of preparation of plans, specifications, and estimates (PS&E), including Basis of Design, design calculations, construction schedule, topographical survey, property mapping, geotechnical engineering, cultural resource inventory and evaluation of historic	

	resources, hazardous materials survey, construction documents, design drawings in Auto CAD (latest version), and relevant permits. Other services will include construction bid support service, meetings, and response to request for interpretation/information during construction. The consultant is required to incorporate and modify existing GWA concrete reservoir specifications to meet the project objective.

DESIGN PW 09-11	**Northern and Southern Guam Reservoir Design** **(TG Engineers)**	**Start Date:** May 2015
60% Complete	**Activities/Notes:** Santa Rosa, Sinifa and Santa Rita design to be packaged in one IFB. Inarajan – Land procurement second site related to new BPS's still on-going. Ugum – GWA still in discussion with re-evaluation and discussion with property owner of alternative property on-going.	**Completion Date:** Update: Due to property acquisitions issues for Piti and Tumon #1, design completion 6 months after property issue resolved.
CO 29 (b)(4)	Engineering design services	
Project Description:	The design services will consist of preparation of plans, specifications, and estimates (PS&E), which includes Basis of Design, design calculations, hydraulic modeling (EPANET), computational fluid dynamic modeling (CFD), construction schedule, topographical survey, property research, property mapping, geotechnical engineering, cultural resource inventory and evaluation of historic resources, hazardous materials survey, construction documents, design drawings in Auto CAD, relevant permit, construction bid support service, and response to request for interpretation/information during construction. The tank locations are Ugum, Santa Rita, Santa Rosa, Inarajan and Sinifa.	

DESIGN PW 12-04	**Central Guam Reservoirs Design** **(GHD Inc.)**	**Start Date:** May 2015
65% Complete	**Activities/Notes:** Chaot #2 – CCU resolution approved to Change Order AIC to construct tank. GWA still waiting for time extension request. Tumon #2 – tank under construction. Hyundai – tank under construction. Piti – GWA still evaluating alternative solutions to storage needs in Piti area. Manenggon –70% design near complete. Tumon #1 – GWA working on land issues.	**Completion Date:** Update: Due to property acquisitions issues for Piti and Tumon #1, design completion 6 months after property issue resolved.
CO 29 (b)(4)	Engineering design services	
Project Description:	The design services will consist of preparation of plans, specifications, and estimates (PS&E), which includes Basis of Design, design calculations, hydraulic modeling (EPANET), computational fluid dynamic modeling (CFD), construction schedule, topographical survey, property research, property mapping, geotechnical engineering, cultural resource inventory and evaluation of historic resources, hazardous materials survey, construction documents, design drawings in Auto CAD, relevant permit, construction bid support service, and response to request for interpretation/information during construction The tank locations are Hyundai, Pulantat, Chaot #2, Tumon #2, Piti & Tumon #1.	

CONSTRUCTION PW 09-03	**Line Replacement Phase IV (Giant Construction)**	**Start Date:** 02/14/16
90% Complete	**Activities/Notes:** Contractor continuing work along Chalan Koda and Matguac.	**Completion Date:** 12/30/18 per Change Order.
	Construction Services	
Project Description:	The project is intended for a contractor to replace existing water lines that have been found by operations to be leaking and/or are causing service delivery to less than what GWA is required to provide. The project will replace water mains and ten known locations throughout the island and there is a component within the bid where line replacement work for unknown locations is accounted for.	

DESIGN PW 05-15	**Asan Spring Rehabilitation Design (HDR)**	**Start Date:** August 24, 2016
95% Complete	**Activities/Notes:** GWA received 100% design drawings. Design under review.	**Completion Date:** Due to delays from the Park Services related to property access the anticipated completion of the design is May 2018.
	Engineering design services	
Project Description:	- Perform site visits and condition assessment for site conditions to determine demolition and rehabilitation requirement, process equipment condition, structural condition, and electrical system. Site condition assessment shall include all disciplines to execute the project. - Review and validate the current property boundary information to confirm the available space for the project development. - Perform an environmental impact study and prepare all required permits as needed. - Perform an archeological and historical resources study to identify potential impact to the project, prepare all required permits as needed. - Coordinate with Guam Historic Resources Division State Historic Preservation Office (SHPO) on historical resources study. Prepare all necessary reports and documents as required by SHPO. - Coordinate with Guam Department of Agriculture, Division of Aquatic and Wildlife Resources (DAWR) on vegetation clearance. Prepare all necessary reports and documents required by DAWR. - Identify the existing and projected service area, period of design. - Identify and recommend conceptual water treatment system. - Perform a Class 4 engineering cost estimate according to the American Association of Cost Engineers (AACE) International Cost Estimate Classification System for construction fee. Cost must include all disciplines, permit, construction and administration that are necessary to execute the project. All costs will be in current dollars and escalated to the estimated midpoint of construction.	

CONSTRUCTION	**Yigo/Astumbo Tank Construction**	**Start Date:**

PW 09-11, PW 12-05	**(Pernix)**	12/1/16
93% Complete	**Activities/Notes:** Yigo #1: tank on-line, final punch list on-going. Yigo #2: tank on-line, punch list on-going. GWA waiting for inspection report for existing 2.5MG steel tank. GWA working to Change Order repair work for Astumbo #2 steel tank. New Concrete Astumbo #1 undergoing leak test.	**Completion Date:** 07/31/18, (GWA working through delay claims from contractor)
	Construction Services	
Project Description:	This project will involve construction of two (2) 2MG concrete tanks and Booster Pump Station at the Yigo site and a one (1) 2MG concrete tank at the Astumbo site. Work will involve new pipe line, valves, electrical controls, pumps and motors, site drainage, paving, generator for the BPS, SCADA, etc.	

CONSTRUCTION MANAGEMENT PW 09-11, PW 12-05	**Yigo/Astumbo Tank Construction Management (GHD)**	**Start Date:** December 2016
93% complete	**Activities/Notes:** Processing submittals and on-site inspection	**Completion Date:** July 2018
N/A	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the demolition of existing steel elevate and ground tanks as well as the construction of the 2MG concrete tanks at the Yigo tank location and Astumbo tank location. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

CONSTRUCTION MANAGEMENT PW 12-04-11, PW 12-06 AND PW 09-11	**Central Tank Phase I (Chaot #2, Tumon #2, Hyundai) Construction Management (TG Engineers, PC)**	**Start Date:** December 2017
10% complete	**Activities/Notes:** Reviewing submittals from contractor.	**Completion Date:** February 2019
N/A	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of three water reservoirs; 0.5MG Chaot #2, 1MG Tumon #2 (Nissan) and 1MG Hyundai. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

CONSTRUCTION	**Central Tank Phase I (Chaot #2, Tumon**	**Start Date:**

PW 12-04, PW 12-06 AND PW 09-11	**#2, Hyundai) Construction (AIC)**	02/8/18
12% Complete	**Activities/Notes:** Nissan steel tank completely demolished, site prep work for foundation work on-going. GWA received building permit for Hyundai tank site. Contractor preparing temporarily tank foundations. GWA working on Change Order to AIC for construction of Chaot #2 tank.	**Completion Date:** 02/31/19
	Construction Services	
Project Description:	The work performed under this project procurement shall consist of Construction of three water reservoirs; 0.5MG Chaot #2, 1MG Tumon #2 (Nissan) and 1MG Hyundai. Some piping work off site from the reservoir is also required to ensure the reservoirs function optimally.	

CONSTRUCTION MANAGEMENT PW 09-11	**Northern and Southern Tank Phase I (Santa Rosa, Sinifa, Santa Rita) Construction Management (GHD)**	**Start Date:** April 2018
0% complete	**Activities/Notes:** Providing constructability review for Santa Rosa Tank.	**Completion Date:** June 2019
N/A	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of three water reservoirs; 1MG Santa Rosa, 1MG Sinifa and 1MG Santa Rita. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

D. CIP Wastewater Section

DESIGN WW 11-08	**Agat-Santa Rita WWTP Replacement (DCA)**	**Start Date:** October 2014
99% Complete	**Activities/Notes:** Change Order to extend design services during construction executed.	**Completion Date:** Nov. 2015 (design); June 2018 (construction)
CO 11	Engineering design services	
Project Description:	The engineering design consultant is required to design a new wastewater treatment facility that will meet secondary treatment limits. The new facilities will incorporate provisions for redundancy to improve reliability and facilitate operations and maintenance activities at the existing facility	

CONSTRUCTION MANAGEMENT WW 11-08	**Agat Santa Rita WWTP CM (GHD)**	**Start Date:** November 2014
100% (PH 1) 100% Complete (PH 2, Part 1) 93% Complete (PH 2,	**Activities/Notes:** Typical CM inspections on-going. Change order required to continue services through remaining construction period.	**Completion Date:** Completion date to coincide with construction

Part B)		completion.
CO 11	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of the Agat Santa Rita WWTP Phase II project. GWA plans to replace the existing wastewater treatment plant for a new plant that can meets permit limits. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

CONSTRUCTION WW 11-08	**Agat Santa Rita WWTP Phase II (Sumitomo Construction)**	**Start Date:** January 2016
Part 1 of Phase II- 100% Complete Part 2 of Phase II- 93% complete	**Activities/Notes:** Contractor still working on headworks, aerobic digester, equalization basin, admin and maintenance buildings.	**Completion Date:** Phase A: 03/15/17 Phase B: 12/31/17 will not be met, December 2018 projected
CO 11	Construction services	
Project Description:	This project includes construction of the head works, clarifier, oxidation ditches and UV disinfection and administration facilities. Rehabilitation work at the existing WWTP will also occur to ensure the wastewater can be pumped to the new plant. The new plant will also tie into the Tipalao SPS.	

DESIGN WW 09-08, WW11-03	**Baza Gardens Cross Island Sewer Design (DCA)**	**Start Date:** 02/05/16
99% Complete	**Activities/Notes:** DCA providing engineering services during construction.	**Completion Date:** 04/30/18(this completion date will have to be extended.)
CO 11	Engineering design services	
Project Description:	The intent of this project for an engineering firm to prepare design drawings and specification for a sewer conveyance from the Baza Garden WWTP to the new Agat Santa-Rite WWTP. The design will take into account growth in the Baza Gardens/Talofofo areas as wells as new connection along the Route 17 route.	

DESIGN WW 09-06	**Bayside SPS Improvements Design (EMPSCO)**	**Start Date:** July 29, 2016
99% Complete	**Activities/Notes:** Due to change in design Army Corp of Engineers permit viewed as not necessary. GWA received 100% design and under review. GWA working on Change order to address snail and archeological report that was not part of original scope.	**Completion Date:** Due to issue with ACOE anticipate December 2017 for design only.
	Engineering design services	
Project Description:	The intent of this project for an engineering firm to prepare design drawings and specification to upgrade the Bayside Sewer Pump Station	

	given the facility is in major disrepair and the adjacent river is eroding away the access road to the facility which is causing maintenance challenges.

CONSTRUCTION WW 09-08, WW 11-03	**Baza Gardens Cross Island Road Sewer Conveyance Construction Phase I (BME and Sons)**	**Start Date:** October 2016
92% Complete	**Activities/Notes:** New SPS near complete, force main and gravity line installation along Route 17 on-going. Change Order related to installation of last segment of sewer executed. Request for CCU approval for additional funding sought in September meeting.	**Completion Date:** Phase I: 03/01/18 (this completion date will have to be extended. Under negotiations)
	Construction services	
Project Description:	The work performed under this project consist of construction of 14,714' of gravity main, 2,767' of force main and sewer pump station #3 next to the Aplacho River in Santa Rita.	

CONSTRUCTION MANAGEMENT WW 09-08 WW 11-03	**Baza Gardens Cross Island Road Sewer Conveyance (Construction Management) (SSFM)**	**Start Date:** December 5, 2016
80% Complete	**Activities/Notes:** Change Order for additional scope and fee with finance.	**Completion Date:** April 2018 (this completion date will have to be extended. Under negotiations)
	Construction Management services	
Project Description:	The work performed under this project shall consist of Construction Management and Inspection Services for the construction of gravity main, force mains and sewer pump station as well as an equalization basin at the Baza Garden WWTP.	

CONSTRUCTION WW 09-08, WW 11-03	**Baza Gardens Cross Island Road Sewer Conveyance Construction Phase II (BME and Sons)**	**Start Date:** March 2017
97% Complete	**Activities/Notes:** New SPS completed, force main completed and gravity line installation along Route 17 completed. Change Order related to installation of last segment of sewer executed. Request for CCU approval for additional funding sought in September meeting.	**Completion Date:** April 2018 (this completion date will have to be extended. Under negotiations)
	Construction services	
Project Description:	The work performed under this project consist of construction of 1,767' of gravity main, 14,400' of force mains and sewer pump station #2 along Route 17.	

CONSTRUCTION WW 09-08, WW 11-03	**Baza Gardens Cross Island Road Sewer Conveyance Construction Phase III (Sumitomo Construction)**	**Start Date:** June 2017
45% Complete	**Activities/Notes:** Contractor continuing pipeline and SPS construction work on Route 17 along with work at wet well at Baza Gardens WWTP.	**Completion Date:** Phase III: 03/16/18 (this completion date will have to be extended. Under negotiations)
	Construction services	
Project Description:	The work performed under this project consist of construction of, but not limited to, 10,481' of force mains and sewer pump station at existing WWTP, equalization tanks, stand-by generator, improved headworks, grit removal system, and associated equipment.	

CONSTRUCTION WW 11-04	**Umatac Merizo WWTP Design Build Improvements Project (CoreTech)**	**Start Date:** June 2017
90% design 30% construction	**Activities/Notes:** · CHL continuing excavation and grading of the North Overland Flow System (OFS) and building pipe wall supports. · Culvert repair work started. · Construction Design: · CT/HD preparing a response to BC's I&C and Process Control comments. · Updated schedule still needed and has been requested. · Water stop designed into generator building not installed. No RFI to approve deletion. · Change Proposals: · WW Characterization / Design of Phosphorus Removal System: Scope delivered to & waiting for a fee proposal for WW Characterization from CT/HD. · Forthcoming - Rock excavation and groundwater flow in area of tank. · Forthcoming - Sheet piles may be needed adjacent to large lagoon for the construction of the UV basin due to seepage from lagoon.	**Completion Date:** December 31, 2018
	Construction services	
Project Description:	The project is intended to improve the aeration basin, construct a new sewer pump station, regrade the overland field, construct a new effluent storage tank and disinfection facility. The overland percolation basin will undergo regarding work to ensure appropriate distribution of effluent through the whole basin.	

CONSTRUCTION MANAGEMENT WW 11-04	**Umatac Merizo WWTP Design Build Improvements Project (SSFM Inc)**	**Start Date:** September 7, 2017
30%	**Activities/Notes:** Continuing on-site inspection of field activities.	**Completion Date:** December 31, 2018
	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the improvements works at the aeration basin, new sewer pump station, overland field improvements, effluent storage tank. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

DESIGN WW 09-01	**Yigo SPS Flood Protection and Rehabilitation Design (AECOM)**	**Start Date:** August 2, 2018
5% Complete	**Activities/Notes:** Site investigation and pre-design task on-going.	**Completion Date:** June 2019
	Engineering design services	
Project Description:	The work performed under this project procurement shall consist of a design services to implement storm water mitigation measures to protect the facility during extreme weather as well as rehabilitate the facility to provide better redundancy and operate efficiently.	

E. CIP Engineering Support

DESIGN EE 09-08	**SCADA System for Water and Wastewater Facilities Phase A-1 (AECOM)**	**Start Date:** June 2015
100% complete (design) 0% Services during construction	**Activities/Notes:** Final design in hand. AECOM to provide assistance during bidding process.	**Completion Date:** November 2017 - Design January 2019 - (Bid and Construction Support)
N/A	Engineering design services	
Project Description:	The A/E firm will design an integrated, robust and secure Supervisory Control and Data Acquisition (SCADA) system for GWA's water and wastewater systems, and to provide support services during bid and construction. The 22 sites will consist of a combination of water facilities such as production wells, reservoirs, booster pump station and wastewater sites include sewer treatment plants and sewer pump stations. Executed by approved change orders, number of sites in original design scope has changed from 22 sites to 19 sites and design of High Water Alarm for 20 critical sewer pump stations has been added. Scope also includes bid and construction support of the design-build project of GPWA SCADA EMS project.	

CONSTRUCTION EE 09-08, EE 09-09	**SCADA Phase A1 Construction (G4S Security)**	**Start Date:** July 13, 2018
5% construction	**Activities/Notes:**	**Completion Date:** December 31, 2018
	Construction services	
Project Description:	The work performed under this project procurement shall consist of Construction of SCADA ready instrumentation at several water and waste water facilities throughout the island.	

F. GIS Section

MAPPING MC 05-02	**Island Wide Survey-** **(Duenas, Camacho & Ass.)**	**Start Date:** December 2007
99% complete	**Activities/Notes:** GWA engineering working to close project with surveyor and ensure all maps received.	**Completion Date:** New anticipated complete is April 2018.
	Survey services	
Project Description:	The contracted land surveyor is required to conduct title research, property valuation and mapping of property boundaries where GWA facilities are located but the lot is not registered under GWA's name.	

MAPPING MC 05-02	**Island Wide Survey PH II -** **(Duenas, Camacho & Ass.)**	**Start Date:** August 30, 2017
50% complete	**Activities/Notes:** First 25 property maps that GM signed are with Land Management. Second set of maps for 20 properties received from surveyor for GM signature. Surveyor conducting field work for third set of 20 properties.	**Completion Date:** December 2018
	Survey services	
Project Description:	The work performed under this project procurement shall consist of a professional land surveyor conducting field work to mark corners of existing government properties as a means of severing out portions of the larger property to be deeded to GWA. Surveyor shall also prepare all necessary maps and documents for recording at DLM	

G. Permits Section

PERMITS
MONTHLY REPORT 2018

		2018					
Description	Jan	Feb	Mar	April	May	Jun/July	Aug/Sept
Building Permit	11	9	1	13	11	28	35
Occupancy Permit	3	10	18	16	18	32	4
New Installation	14	8	7	9	3	18	3
Sewer Application	15	14	7	6	3	0	0
Sewer Inspection	0	1	3	0	0	1	0
Private Utility Acceptance	0	0	0	0	0	0	0
Relocation of Water Meter	0	0	0	0	0	0	0
Tapping-Water	1	1	0	0	3	1	1
Tapping-Sewer	0	1	0	0	0	0	0
Clearance-Water	3	2	7	10	20	41	44
Clearance-Sewer	3	2	7	10	20	41	44
Highway Encroachment	0	4	41	22	25	31	1
Verification of Utilities	4	4	5	4	1	7	8
Fire Flow Test	0	0	1	0	0	0	0
Schedule Water Outage	0	1	0	0	0	0	0

H. SRF Project Status Report

- Projects listed below that are noted to be in the procurement phase will follow the "Percentage Key" below.

Percentage Key:

100%	Approved by GM
99%	Signature required from either Accounting/Legal/GM
98%	Processing engineering service or construction contract (with legal)
95%	Request for CCU approval (GM/engineering)
90%	A/E fee negotiation or contractor bid evaluation (engineering)
80%	Selected A/E or Conducted bid opening (engineering)
70%	Advertised RFP/IFB (engineering)
60%	RFP/IFB Package under legal review
50%	RFP/IFB Package completed (engineering)
Less than 50%	Project Scope of work development in progress

- Red text anywhere indicates a change from the last report.
- Cells highlighted in green indicate contract amount certified and project active.

	Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount (+) change orders	Contractor	Status as of 09/17/18
1	Northern District SSES & I/I Study	Sanitary sewer system evaluation study (SSES) and inflow and infiltration (I/I) study designed to evaluate high I/I areas within the Northern sewer basin with the goal of identifying projects to eliminate them.	J. Davis	Design	1	10/10/2014	2/29/2016	$ 792,979.97	Stanley	100% Complete.
				Construction				*The project does not involve construction.*		
				Const. Mgmt						
2	Southern SSES Rehabilitation (Agat-Santa Rita-Umatac-Merizo)	Rehabilitation of segments of sewer lines in Umatac, Merizo, Agat, and Santa Rita where the Sanitary Sewer Evaluation Study recommends rehabilitation.	Brown & Caldwell	Design				*The design was previously completed under bond funding.*		
				Construction	1	10/30/2015	2/28/2017	$ 1,170,583.82	Reliable Builders	Warranty work complete .
				Const. Mgmt	1	11/10/2015	3/30/2017	$ 226,980.23	TG Engineers	CM Services complete.
3	Asan-Adelup-Hagatna RT1 Sewer Line Rehabilitation and Replacement	Rehabilitation of sewer lines from the War in the Pacific Asan Park to the Governor's Complex in Adelup. This line is asbestos concrete that is dilapidated and some areas have disintegrated crowns.	Brown & Caldwell	Design	2	12/11/2015	3/30/2017 for Design requirements	$ 1,780,210.00	HDR	Route 1 rebid: HDR to provide services during bid process. .
				Construction		10/16/2018	12/30/2019	$6,275,782.88		Procurement 98%. CCU approve resolution for contract with InfraTech. GWA waiting for insurance and bonding documents. .
				Const. Mgmt	2	8/3/2017	8/3/2019	$ 870,610.41	DCA	Procurement 100%. Contract executed July 31, 2018. NTP issued August 2, 2018.
4	RT2 Agat War in the Pacific Sewer Line Rehabilitation and Replacement	Rehabilitation of a large segment of sewer line fronting the War in the Pacific Park in Agat that has collapsed.	Brown & Caldwell	Design	3	11/17/2015	3/30/2017 for Design requirements	$ 316,681.00	SSFM	SSFM providing services during bidding process as well as construction phase.
				Construction	2	8/31/2017	10/1/2018	$ 4,554,451.00	ProPacific	· Stop work order still in effect for PPBC due to improper trench shoring, and lack of support for utilities. · Met with TGE, PPBC on 9/12 to further discuss next steps. · PPBC going to revise and resubmit trench box/shoring submittal. · PPBC working on SMH #8A and start #8; SMH#8 will need to move due to utilities on both sides. · SMH #8A to be installed this week, depending on weather. · Laying pipe between SMH #4 & 5 on hold until trench shoring is resolved. · PPBC continues discharging/dewatering water to sewer; GWA metering discharge. · Still waiting on SSFM on justification for hours spent on engineering services; provided proposal on T&M basis for additional services. · CO #2: $99.3K for bypass connection of active sewer to new sewer or purchase of new(ish) trash pump. GWA decided to proceed with bypass pump purchase. Working with HES to get quotes. · CO#3: In negotiation for additional time/work completed. · Contractor Invoice #7 processing.
				Const. Mgmt	3	9/19/2017	10/1/2018	$ 584,725.00	TG Engineers	• CM inspection and coordination on-going.

5	Brown & Caldwell Project Management	Brown & Caldwell to provide program management services and support.	T. Cruz	Design	4	3/24/2015	2/28/2019	$ 2,640,220.00	B&C	Project underway.
				Construction				*The project does not involve construction.*		
				Const. Mgmt						
6	Wastewater, Water and Source Water System Master Plan Upgrade	Update of the existing water and wastewater master plan while factoring in military integration and secondary treatment plant options.	Brown & Caldwell	Design	5	7/6/2015	01/30/2018 (revised due to financial workshop)	$ 2,623,300.00	B&C	· Master Plan approved at the CCU session on the 28th. · Waiting on final public meeting review comment responses from Miguel before printing the final documents. · Budget is expended - additional work for the public meetings and SFO Presentation currently at ~$66,000. (Final printing ~ $7,000).
				Construction				*The project does not involve construction.*		
				Const. Mgmt						
7	Groundwater Wells Rehabilitation (F-3, A-2, A-7, A-12, D-5)	Rehabilitation of existing deep wells and/or in cases where pipe column needs replacing, wells will be re-drilled. The deep wells to be rehabilitated are A-2, A-7, A-12, D-5, & F-3.	Brown & Caldwell	Design	6	5/27/2016	2/28/2018 (for design only)	$ 1,758,247.00	AECOM	• Project in holding pattern until construction IFB is issued (funding source TBD).
				Construction		9/30/2018	9/30/2019			SRF grant funds specific to project pending FY18 grant approvals and award.
				Const. Mgmt		9/30/2018	9/30/2019			· Draft CM scope submitted to GWA.
8	Tumon Sewer Hot Spots	Investigation, evaluation, and repair of possible solutions, to long plaguing issues where sewer overflows are known to occur in Tumon San Vitores.	Brown & Caldwell	Design	7	6/24/2016	10/30/2017 for design only	$ 572,089.00	TG Engineers	· TGE to provide engineering services during bid process.
				Construction		12/1/2018	12/31/2019			Procurement 70%; GWA rejected all bid due to bids being above funding availability. GWA will work to repackage bids and re-bid within One (1) month period.
				Const. Mgmt		12/1/2018	12/31/2019			Procurement 90%: Proposal evaluation completed with AMOrient selected as most qualified. Scope and fee negotiations on-going..
9	Critical Sewer Pump Stations (7 stations)	Rehabilitation of various components of 7 pump stations that were identified to by the CDM design team: Macheche, Ypaopao, Astumbo 1, Fujita, Santa Ana, Southern Link, and Route 1.	CDM	Design				*The design will be incorporated into the design/build package.*		
			J. Davis	Design/Build	1	8/8/2016	3/30/2018	$ 1,542,979.01	ProPacific	All punch list items cmpete. Final close out on-going.
				Const. Mgmt	4	9/9/2016	3/30/2018	$ 329,353.52	Stanley	CM working. Close out of project on-going..

10	Sewer Pump Station High Water Alarm Systems (20 stations)	This project will design and installed telemetry equipment/SCADA type alarms that will alert when pump station failure occurs.	C. Yam	Design				*The design will be incorporated into the design/build package.*		
				Design	8	8/12/2016	02/30/2017	$ 183,171.00	AECOM	Design complete
				Construction	3	4/5/2017	9/30/2017	$ 1,444,888.00	Pacific Rim	Project complete
				Const. Mgmt	5	02/30/2017	9/30/2017	$ 195,269.00	EMSPCO	CM work complete
11	Sewer Pump Station Backup Power (2 stations)	Construction of the housing and installation of new generators for the Casimero pump station (Mongmong) and the Namo pump station (Yona central).	B. Cruz	Design				*The design will be incorporated into the design/build package.*		
				Design/Build	2	6/24/2016	9/30/2017	$ 362,692.53	ProPacific	Design Build project complete.
				Const. Mgmt				*B. Cruz is the construction manager.*		
12	RT4 Relief Sewer Line Rehabilitation and Replacement	Rehabilitation of sewer lines that are located from Agana McDonalds to Marine Drive that have been known to overflow due to structural issues.	Brown & Caldwell	Design	9	3/1/2016	4/22/2017	$ 794,000.00	AECOM	· AECOM to provided services during bidding process.
				Construction	4	11/15/2018	12/31/2019	$ 3,998,688.00	Insituform	Procurement 100%, Contract for Insituform executed and NTP issued. GWA awaiting acknowledgment form contractor.
				Construction		11/15/2018	12/31/2019	$ 3,407,848.00		Procurement 98%, Contract for ProPacifcic transmitted to management for executed.
				Const. Mgmt	6	11/15/2018	12/31/2019	$ 702,678.13	EMPSCO	No CM activities until contractors on board.
13	Groundwater Wells Rehabilitation (D-3, D-17, D-18, D-22, M-9)	Rehabilitation of existing deep wells and/or in cases where pipe column needs replacing will be re-drilled. D-3, D-17, D-18, D-22, and M-9.	Brown & Caldwell	Design				*The design was previously completed under bond funding.*		
				Construction	5	8/19/2016	3/30/2018 (completion date under analysis)	$ 6,158,240.67	Pacific Rim	· Main issues remain · VFD size. Responded to RFI 96 (VFD's and D-03) on Friday 8/10. VFD Shop drawing approved. · Sounding tubes were lowered to the correct elevation on 8/14 and 8/15. This issue is resolved. · Level Sensor trouble shooting indicated that the problem is not in the well which eliminates the design issue contention. And further trouble shooting on 8/14 confirmed the problem is in the panel or a grounding issue that PPRC needs to address. · PRC has done some additional work/testing at D-17 and believe they have fixed the level sensor interference problem. BC and EA still to confirm. · Trouble shooting at D-22 confirmed that there is a pumping issue down the well - PRC will pull the pump to investigate. Pump rotation was checked and is correct. · Well rig test failure still an issue; trying to coordinate between GWA/Morrico/Hunke. · There are a number of warranty issues cropping up that we are not being informed of so we can follow up with PRC. At the moment, two chlorine regulators and one emergency shutoff valve have been removed from service and vacuum leaks are expected at two of the wells. PRC has been working on the repairs and coordinating with Ray Q. · Met with PRC on the O& M Manuals on 6/6. Getting closer, but still work to complete. May submit Volume 1 first which covers most of the major equipment.
				Const. Mgmt	7	3/22/2016	3/30/2018 (completion date under analysis)	$ 1,041,722.56	EA	• CM continuing to coordinate punch list items with contractor.

14	Southern SSES Sewer Rehabilitation (Baza Gardens-Talofofo)	Rehabilitation of segments of sewer lines in Windward Hills, Talofofo area where the Sanitary Sewer Evaluation Study recommends rehabilitation.	Brown & Caldwell	Design				*The design was previously completed under bond funding.*		
				Construction	6	8/2/2016	Due to issue related to Santa Rita sewer project completion under analysis.	$ 1,189,815.00	ProPacific	· Lift/Pump Station Proposal was submitted to BC on 8/31/2018. · BC response given on 9/13/2018 - with no agreement to proceed. · Follow up meeting with PPBC to discuss concerns on 9/17 · PPBC on notice since 12/01/2017 (via formal GWA letter) that continuing delays are unacceptable and grounds for potential default. · Baza Gardens: · Segment in Liguana Estate not completed due to coordination issues with Todu Mauleg § Will be done next week. · 2 laterals remain to be reinstated § Exact location needs to be determined. Crew to work on this task next week. · Contractor to conduct final CCTV of all Baza Gardens after laterals are reinstated. · Talofofo: Final Inspection held on 5/25 -- all defects were corrected and work is complete.
				Const. Mgmt	8	7/29/2016	5/28/2017	$ 347,945.93	EMPSCO	· PM to work on Change Order to extend contract and amount.
15	Tamuning Sewer Hot Spots	Sewer rehabilitation for lines at Winner Apartments, Segund Leon Guerrero, and behind Guam Premium Outlets.	Brown & Caldwell	Design	10	9/9/2016	10/31/2017 (for design only)	$ 663,629.00	TG Engineers	· TGE to provide engineering services during bid process.
				Construction		12/1/2018	12/31/2019			Procurement 70%; GWA rejected all bid due to bids being above funding availability. GWA will work to repackage bids and re-bid within One (1) month period.
				Const. Mgmt		12/1/2018	12/31/2019			Procurement 90%: Proposal evaluation completed with AMOrient selected as most qualified. Scope and fee negotiations on-going..
16	Talofofo Sewer Pump Stations (4 stations)	Design and construction of 4 sewer lift stations in the Talofofo village where sewer lines are installed but never completed.	J. Davis	Design (for Talofofo and Chalan Pago PS)	11	8/17/2016	11/30/2017	$ 493,818.86	EMPSCO	Talafofo Pump Station design /bid package received. Final Design of Chalan Pago Pump Station project under review by GWA. Change Order related to snails to be executed.
				Construction		12/1/2018	12/31/2019			Procurement 95%; Bid opening occurred 8/22/18. Apparent lowest bidder is Giant. Resolution to be presented in September CCU meeting.
				Const. Mgmt		12/1/2018	12/31/2019			GWA Engineering will management construction management tasks.
17	Chalan Pago Sewer Pump Station	Design and construction of sewer lift stations and gravity lines in Scott Laguana, Santa Cruz Street Chalan Pago.	J. Davis	Design		8/17/2016	11/30/2017	*The design will be included with the Talofofo Pump Station design project.*		
				Construction		3/15/2019	3/30/2020			
				Const. Mgmt		3/15/2019	3/30/2020			
18	Water Hydraulic Model (SCADA ready instruments to update Model)	Design and construction of instrumentation at key water sites in the Barrigada service area necessary to update GWA Water hydraulic model.	Barbara Cruz	Design	12	8/3/2016	3/15/2017	$ 523,268.00	GHD	Design complete.
				Construction		3/15/2019	3/30/2020			Funding for construction project to be from FY18 grant that is still pending.
				Const. Mgmt		3/15/2019	3/30/2020			Funding for construction manager to be from FY18 grant that is still pending.

19	Macheche Hill Sewer Rehabilitation/ Replacement	Rehabilitation of sewer lines on Macheche road. Segments of this sewer line has collapsed recently and is consider a high priority.	J. Davis	Design-Build	3	8/29/2016	3/30/2018	$ 2,202,545.47	Giant Const.	Construction project complete.
				Const. Mgmt	9	9/16/2016	3/30/2018	$ 379,994.38	Am Orient	CM work complete.
20	Asan-Adelup-Hagatna Rt. 1 Sewer Line Rehabilitation and Replacement Emergency Repairs	Rehabilitation of sewer line in Asan that collapsed and which is current fitted with a temporary pumping system.	Brown & Caldwell	Design				Design cost covered under Project 3 above.		
				Construction	7	3/8/2017	12/30/2017	$ 2,470,658.00	Pacific Rim	· Record drawings: Waiting on revision 3 from PRC; Rev2 returned with comments, approximately 98%. · Received final invoice for review (9/13).
				Const. Mgmt	10	1/24/2017	12/30/2017	covered under Project 3	HDR	CM work complete.
21	Valve Maintenance Equipment Trailer (2 each)	Acquire two sets of valve exercise equipment mounted on trailers to be used to exercise existing valves in the distribution system as a means of maintaining the valves functionality so the valves to not "freeze up" and required replacement	Grants/Operations	Equipment	1			$ 167,814.94		Complete
22	Heavy Duty Trucks to Haul Valve Maintenance Equipment Trailer (2 each)	Acquire two heavy duty trucks with extended to pull the valve exercise equipment trailer	Grants/Operations	Equipment	2			$ 139,790.00	Triple J	Complete
23	Project Advertisement	Each IFB or RFP requires advertising	Engineering/ Procurement	MISC	1			$ 25,172.50	PDN/Post	On-going

GUAM WATERWORKS AUTHORITY
AUGUST 31, 2018
FINANCIAL AND RELATED REPORTS
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GUAM WATERWORKS AUTHORITY
Balance Sheet
August 31, 2018

SCHEDULE A

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	Unaudited August 31, 2018	Audited September 30, 2017	Increase (Decrease)
Current Assets:			
Cash:			
Unrestricted (Schedule G)	$ 1,072,011	$ 4,873,275	$ (3,801,264)
Restricted Funds (Schedule G)	70,753,189	65,124,400	5,628,789
Accounts Receivable Trade, Net of Allowance for Doubtful Receivables of $13,825,731 at Aug 31, 2018 and $12,619,034 at Sep 30, 2017	14,677,513	15,450,733	(773,220)
Other Receivable	2,143,223	8,433,446	(6,290,223)
Materials & Supplies Inventory, Net of Allowance for Obsolescence of $457,370 at Aug 31, 2018 and Sep 30, 2017	3,166,880	2,166,557	1,000,323
Total Current Assets	91,812,817	96,048,411	(4,235,594)
Property, Plant and Equipment			
Utility plant in service:			
Water system	335,636,865	327,484,191	8,152,674
Wastewater system	290,040,866	286,394,940	3,645,926
Non-utility property	19,252,688	18,938,255	314,432
Total property	644,930,419	632,817,387	12,113,032
Less Accumulated Depreciation	(302,843,254)	(286,043,580)	(16,799,674)
Land	1,163,298	1,110,998	52,300
Construction Work in Progress	186,416,748	111,695,887	74,720,861
Property, Plant and Equipment, net	529,667,210	459,580,691	70,086,519
Other noncurrent assets			
Restricted cash (Schedule G)	182,555,364	236,550,002	(53,994,638)
Investments (Schedule G)	42,162,007	41,042,038	1,119,969
Other Prepaid Expenses	894,477	551,128	343,348
Total other noncurrent assets	225,611,848	278,143,169	(52,531,321)
Total Assets	847,091,875	833,772,271	13,319,604
Deferred outflows of resources:			
Debt defeasance due to bond refunding	13,418,430	1,695,981	11,722,449
Deferred outflows from pension	4,939,994	4,943,777	(3,783)
Total Assets and Deferred Outflows of Resources	**$ 865,450,299**	**$ 840,412,029**	**$ 25,038,270**
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET ASSETS			
Current Liabilities:			
Current maturities of long-term debt			
-Series 2010 Bond	$ 1,800,000	$ 1,725,000	$ 75,000
-Series 2014 Refunding	3,620,000	3,475,000	145,000
-Series 2017 Refunding	295,000	-	295,000
-Notes Payable	3,145,406	3,037,569	107,837
Accounts Payable -Trade	6,758,655	5,390,256	1,368,399
Interest Payable	4,275,569	6,656,499	(2,380,930)
Accrued Payroll and Employee Benefits	2,454,698	2,604,471	(149,773)
Accrued Annual Leave	1,082,311	1,729,291	(646,980)
Current portion of employee annual leave	411,887	567,057	(155,170)
Contractors' Payable	13,752,133	13,950,287	(198,154)
Customer and Other Deposits	1,995,277	2,014,435	(19,159)
Other Liabilities	72,817	72,772	45
Total Current Liabilities	39,663,754	41,222,638	(1,558,884)
Long Term Debt, less current maturities			
Series 2010 Revenue Bond	3,620,000	112,800,000	(109,180,000)
Series 2013 Revenue Bond	172,630,000	172,630,000	-
Series 2014 Refunding Bond	68,900,000	72,520,000	(3,620,000)
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	(1,291,910)	(1,338,751)	46,841
Unamortized Premium - Bond 2014	4,560,298	4,804,694	(244,396)
Unamortized Premium - Bond 2016	16,706,105	17,262,975	(556,870)
Unamortized Premium - Bond 2017	13,248,583	-	13,248,583
Notes Payable	2,639,495	5,533,918	(2,894,423)
Unfunded Ret Liability (GASB 67/68)	49,243,798	49,243,798	-
Employee Annual Leave, Less Current Portion	1,021,974	783,992	237,982
Total Liabilities	621,617,098	616,905,739	4,711,359
Deferred inflows of resources:			
Deferred inflows from pension	202,219	564,514	(362,295)
Total Liabilities and Deferred Inflows of Resources	621,819,317	617,470,253	4,349,064
Net Assets	**243,630,982**	**222,941,776**	**20,689,206**
Total Liabilities, Deferred Inflows of Resources and Net Assets	**$ 865,450,299**	**$ 840,412,029**	**$ 25,038,270**

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited) **SCHEDULE B**
Comparative Budget vs. Actual for the period ending August 31, 2018

	Month to Date Budget August-18	Month to Date Actual (Unaudited) August-18	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	$ 5,743,160	$ 5,088,228	$ (654,932)
Wastewater Revenues	3,228,257	3,292,102	63,844
Legislative Surcharge	291,896	255,703	(36,193)
Other Revenues	57,638	45,591	(12,047)
System Development Charge	46,136	75,362	29,227
Total Operating Revenues	9,367,087	8,756,986	(610,101)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	771,113	770,887	227
Power Purchases	1,107,997	1,155,203	(47,206)
Total Utility Costs	1,879,110	1,926,090	(46,980)
Salaries and Wages	1,625,056	1,696,211	(71,155)
Pension and Benefits	584,558	558,452	26,107
Total Salaries and Benefits	2,209,614	2,254,662	(45,048)
Capitalized Labor and Benefits	(208,333)	(208,333)	(0)
Net Salaries and Benefits	2,001,281	2,046,329	(45,048)
Administrative and General Expenses			
Sludge removal	134,514	132,776	1,738
Chemicals	114,997	107,951	7,046
Materials & Supplies	352,900	349,090	3,809
Transportation	52,370	46,219	6,151
Communications	16,182	13,717	2,465
Claims	11,100	7,660	3,440
Insurance	79,757	75,172	4,585
Training & Travel	11,814	2,700	9,114
Advertising	13,910	12,548	1,363
Miscellaneous	105,515	100,523	4,993
Regulatory Expense	12,086	7,630	4,456
Bad Debts Provision	57,103	109,688	(52,585)
Total Administrative and General Expense	962,248	965,673	(3,425)
Depreciation Expense	1,528,175	1,528,175	(0)
Contractual Expense			
Audit & Computer Maint.	28,630	28,150	480
Building rental	37,955	36,262	1,693
Equipment rental	57,375	49,543	7,831
Legal	4,167	600	3,567
Laboratory	24,752	17,868	6,884
Other	230,363	222,018	8,345
Total Contractual Expense	383,241	354,440	28,801
Retiree Supp. Annuities and health care costs	240,008	234,003	6,006
Contribution to Government of Guam	49,500	49,833	(333)
Total Retiree Benefits	289,508	283,836	5,672
Total Operating Expenses	7,043,563	7,104,544	(60,980)
Earnings (Loss) from Operations	2,323,524	1,652,442	(671,082)
Interest Income-2010/13/14/16/17 Series Bond	15,727	300,532	284,806
Interest Income-Other Funds	2,935	61,198	58,264
Interest Income-SDC	2,414	(10,339)	(12,753)
Interest Expense- 2010/13/14/16/17 Series Bond	(2,625,587)	(2,137,785)	487,803
Interest Expense- ST BOG	(33,288)	(25,214)	8,074
Federal Expenditures	(51,332)	(138,035)	(86,703)
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)	32,592	137,873
Prior Year Adjustment	-	-	-
Total non-operating revenues (expenses)	(2,246,492)	(1,382,035)	864,457
Net Income (Loss) before capital contributions	77,032	270,408	193,375
Capital Contributions			
Grants from US Government	873,108	1,586,699	713,591
Grants from GovGuam & Others	-	-	-
Other Contributions	-	-	-
Total Capital Contributions	873,108	1,586,699	713,591
Change in Net Assets	$ 950,140	$ 1,857,106	$ 906,966
Debt Service Calculation			
Earnings From Operations	$ 2,323,524	$ 1,652,442	
System Development Charge	(46,136)	(75,362)	
Retiree COLA	49,500	49,833	
Interest/Investment Income	2,935	61,198	
Depreciation	1,528,175	1,528,175	
Balance Available for Debt Service per Section 6.12	3,857,998	3,216,287	
Working Capital Reserve Available for Debt Service	932,265	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	4,373,596	4,151,608	
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	1.44	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.75	1.86	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited) **SCHEDULE C**
Comparative for the period ending August 31, 2018 and 2017

	Month to Date Actual (Unaudited) August-18	Actual (Audited) August-17	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	$ 5,088,228	$ 5,331,404	$ (243,175)
Wastewater Revenues	3,292,102	3,099,528	192,574
Legislative Surcharge	255,703	267,269	(11,566)
Other Revenues	45,591	36,293	9,298
System Development Charge	75,362	72,662	2,700
Total Operating Revenues	8,756,986	8,807,155	(50,169)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	770,887	609,094	(161,793)
Power Purchases	1,155,203	1,006,355	(148,848)
Total Utility Costs	1,926,090	1,615,449	(310,641)
Salaries and Wages	1,696,211	1,413,608	(282,602)
Pension and Benefits	558,452	490,400	(68,051)
Total Salaries and Benefits	2,254,662	1,904,009	(350,653)
Capitalized Labor and Benefits	(208,333)	(262,516)	(54,183)
Net Salaries and Benefits	2,046,329	1,641,493	(404,836)
Administrative and General Expenses			
Sludge removal	132,776	140,487	7,711
Chemicals	107,951	174,001	66,050
Materials & Supplies	349,090	128,788	(220,303)
Transportation	46,219	53,744	7,525
Communications	13,717	10,884	(2,833)
Claims	7,660	22,151	14,491
Insurance	75,172	90,603	15,431
Training & Travel	2,700	23,055	20,355
Advertising	12,548	8,988	(3,560)
Miscellaneous	100,523	71,997	(28,526)
Regulatory Expense	7,630	24,134	16,504
Bad Debts Provision	109,688	109,700	12
Total Administrative and General Expense	965,673	858,530	(107,143)
Depreciation Expense	1,528,175	1,402,038	(126,137)
Contractual Expense			
Audit & Computer Maint.	28,150	76,901	48,751
Building rental	36,262	36,557	295
Equipment rental	49,543	59,374	9,831
Legal	600	414	(186)
Laboratory	17,868	10,627	(7,242)
Other	222,018	156,747	(65,270)
Total Contractual Expense	354,440	340,619	(13,821)
Retiree Supp. Annuities and health care costs	234,003	231,895	(2,107)
Contribution to Government of Guam	49,833	49,500	(333)
Total Retiree Benefits	283,836	281,395	(2,441)
Total Operating Expenses	7,104,544	6,139,525	(965,019)
Earnings (Loss) from Operations	1,652,442	2,667,630	(1,015,188)
Interest Income-2010/13/14/16/17 Series Bond	300,532	65,354	235,178
Interest Income-Other Funds	61,198	10,032	51,167
Interest Income-SDC	(10,339)	1,060	(11,398)
Interest Expense- 2010/13/14/16/17 Series Bond	(2,137,785)	(2,220,744)	82,959
Interest Expense- ST BOG	(25,214)	(43,736)	18,522
Federal Expenditures	(138,035)	(42,501)	(95,534)
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	32,592	-	32,592
Prior Year Adjustment	-	(26,756)	26,756
Total non-operating revenues (expenses)	(1,382,035)	(1,119,512)	(262,522)
Net Income (Loss) before capital contributions	270,408	1,548,118	(1,277,710)
Capital Contributions			
Grants from US Government	1,586,699	1,815,921	(229,223)
Grants from GovGuam & Others	-	1,664	(1,664)
Other Contributions	-	-	-
Total Capital Contributions	1,586,699	1,817,586	(230,887)
Change in Net Assets	$ 1,857,106	$ 3,365,704	$ (1,508,597)

Debt Service Calculation		
Earnings From Operations	$ 1,652,442	$ 2,667,630
System Development Charge	(75,362)	(72,662)
Retiree COLA	49,833	49,500
Interest/Investment Income	61,198	10,032
Depreciation	1,528,175	1,402,038
Balance Available for Debt Service per Section 6.12	3,216,287	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	4,151,608	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)	1.44	1.98
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.86	2.44

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited) **SCHEDULE D**
Comparative Budget vs. Actual for the period ending August 31, 2018

	Year to Date Budget August-18	Year to Date Actual (Unaudited) August-18	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	$ 63,174,761	$ 59,435,314	$ (3,739,447)
Wastewater Revenues	35,510,831	35,270,964	(239,867)
Legislative Surcharge	3,210,856	3,071,977	(138,879)
Other Revenues	634,018	407,971	(226,047)
System Development Charge	507,494	1,031,817	524,323
Total Operating Revenues	103,037,960	99,218,042	(3,819,917)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	8,132,245	8,122,452	9,792
Power Purchases	13,437,966	13,397,876	40,089
Total Utility Costs	21,570,210	21,520,329	49,881
Salaries and Wages	17,875,615	16,476,701	1,398,914
Pension and Benefits	6,430,141	5,594,088	836,054
Total Salaries and Benefits	24,305,756	22,070,789	2,234,967
Capitalized Labor and Benefits	(2,291,667)	(2,405,946)	114,279
Net Salaries and Benefits	22,014,090	19,664,843	2,349,247
Administrative and General Expenses			
Sludge removal	1,269,654	1,260,154	9,500
Chemicals	1,989,965	1,957,718	32,247
Materials & Supplies	1,956,898	1,940,385	16,512
Transportation	591,075	586,686	4,389
Communications	178,001	164,086	13,915
Claims	122,100	81,131	40,969
Insurance	902,322	833,202	69,120
Training & Travel	139,956	126,841	13,115
Advertising	133,011	126,564	6,447
Miscellaneous	960,670	959,161	1,509
Regulatory Expense	242,950	233,715	9,235
Bad Debts Provision	1,208,129	1,206,642	1,487
Total Administrative and General Expense	9,694,729	9,476,285	218,444
Depreciation Expense	16,809,921	16,809,925	(4)
Contractual Expense			
Audit & Computer Maint.	584,934	576,908	8,026
Building rental	397,505	393,835	3,670
Equipment rental	851,120	845,641	5,479
Legal	15,833	6,600	9,233
Laboratory	382,267	374,806	7,461
Other	1,973,994	1,973,118	876
Total Contractual Expense	4,205,654	4,170,908	34,746
Retiree Supp. Annuities and health care costs	2,640,092	2,608,391	31,701
Contribution to Government of Guam	544,500	548,167	(3,667)
Total Retiree Benefits	3,184,592	3,156,558	28,034
Total Operating Expenses	77,479,196	74,798,848	2,680,348
Earnings (Loss) from Operations	25,558,764	24,419,194	(1,139,569)
Interest Income-2010/13/14/16/17 Series Bond	172,993	2,463,061	2,290,068
Interest Income-Other Funds	32,282	429,841	397,560
Interest Income-SDC	26,557	80,915	54,358
Interest Expense- 2010/13/14/16/17 Series Bond	(28,881,460)	(23,991,829)	4,889,631
Interest Expense- ST BOG	(366,170)	(324,989)	41,181
Federal Expenditures	(564,654)	(688,467)	(123,813)
Loss on Asset Disposal	-	-	-
AFUDC	6,875,000	6,875,000	-
Amortization of Discount, Premium and Issuance Costs	(680,469)	(434,753)	245,716
Defeasance due to bond refunding	(167,402)	(136,879)	30,523
Deferred outflows from pension	(1,158,087)	358,512	1,516,598
Prior Year Adjustment	-	37,975	37,975
Total non-operating revenues (expenses)	(24,711,410)	(15,331,613)	9,379,797
Net Income (Loss) before capital contributions	847,353	9,087,581	8,240,228
Capital Contributions			
Grants from US Government	9,604,190	11,601,625	1,997,435
Grants from GovGuam & Others	-	-	-
Other Contributions	-	-	-
Total Capital Contributions	9,604,190	11,601,625	1,997,435
Change in Net Assets	$ 10,451,544	$ 20,689,206	$ 10,237,662
Debt Service Calculation			
Earnings From Operations	$ 25,558,764	$ 24,419,194	
System Development Charge	(507,494)	(1,031,817)	
Retiree COLA	544,500	548,167	
Interest/Investment Income	32,282	429,841	
Depreciation	16,809,921	16,809,925	
Balance Available for Debt Service per Section 6.12	42,437,973	41,175,310	
Working Capital Reserve Available for Debt Service	10,254,916	10,253,476	
Transfer to Working Capital- Debt Service Reserve	(1,650,000)	-	
Transfer to Working Capital- O&M Reserve	(2,933,333)	-	
Balance Available for Debt Service inclusive of reserves	48,109,555	51,428,786	
Debt Service			
Principal	4,766,667	4,766,667	
Interest	22,697,424	19,744,010	
Total	$ 27,464,091	$ 24,510,677	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.55	1.68	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.75	2.10	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings (Unaudited)
Comparative for the period ending August 31, 2018 and 2017

SCHEDULE E

	Year to Date ACTUAL (Unaudited) August-18	ACTUAL (Audited) August-17	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	$ 59,435,314	$ 58,645,439	$ 789,875
Wastewater Revenues	35,270,964	34,094,805	1,176,159
Legislative Surcharge	3,071,977	2,939,958	132,019
Other Revenues	407,971	399,221	8,750
System Development Charge	1,031,817	799,284	232,534
Total Operating Revenues	99,218,042	96,878,706	2,339,336
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	8,122,452	6,700,031	(1,422,421)
Power Purchases	13,397,876	11,069,907	(2,327,969)
Total Utility Costs	21,520,329	17,769,938	(3,750,391)
Salaries and Wages	16,476,701	15,549,693	(927,008)
Pension and Benefits	5,594,088	5,394,403	(199,684)
Total Salaries and Benefits	22,070,789	20,944,097	(1,126,692)
Capitalized Labor and Benefits	(2,405,946)	(2,887,673)	(481,727)
Net Salaries and Benefits	19,664,843	18,056,424	(1,608,420)
Administrative and General Expenses			
Sludge removal	1,260,154	1,545,355	285,201
Chemicals	1,957,718	1,914,012	(43,706)
Materials & Supplies	1,940,385	1,416,664	(523,721)
Transportation	586,686	591,188	4,502
Communications	164,086	119,722	(44,364)
Claims	81,131	243,661	162,530
Insurance	833,202	996,630	163,428
Training & Travel	126,841	253,600	126,759
Advertising	126,564	98,865	(27,699)
Miscellaneous	959,161	791,962	(167,199)
Regulatory Expense	233,715	265,479	31,764
Bad Debts Provision	1,206,642	1,206,697	55
Total Administrative and General Expense	9,476,285	9,443,835	(32,450)
Depreciation Expense	16,809,925	15,422,417	(1,387,508)
Contractual Expense			
Audit & Computer Maint.	576,908	845,911	269,003
Building rental	393,835	402,122	8,287
Equipment rental	845,641	653,113	(192,528)
Legal	6,600	4,555	(2,045)
Laboratory	374,806	116,892	(257,915)
Other	1,973,118	1,724,218	(248,899)
Total Contractual Expense	4,170,908	3,746,810	(424,098)
Retiree Supp. Annuities and health care costs	2,608,391	2,550,850	(57,542)
Contribution to Government of Guam	548,167	544,500	(3,667)
Total Retiree Benefits	3,156,558	3,095,350	(61,208)
Total Operating Expenses	74,798,848	67,534,773	(7,264,075)
Earnings (Loss) from Operations	24,419,194	29,343,933	(4,924,739)
Interest Income-2010/13/14/16/17 Series Bond	2,463,061	718,898	1,744,163
Interest Income-Other Funds	429,841	110,350	319,492
Interest Income-SDC	80,915	11,658	69,258
Interest Expense- 2010/13/14/16/17 Series Bond	(23,991,829)	(24,428,181)	436,353
Interest Expense- ST BOG	(324,989)	(481,099)	156,109
Federal Expenditures	(688,467)	(467,516)	(220,951)
Loss on Asset Disposal	-	(892,150)	892,150
AFUDC	6,875,000	12,894,650	(6,019,650)
Amortization of Discount, Premium and Issuance Costs	(434,753)	680,468	(1,115,221)
Defeasance due to bond refunding	(136,879)	(167,403)	30,523
Deferred outflows from pension	358,512	-	358,512
Prior Year Adjustment	37,975	(294,312)	332,287
Total non-operating revenues (expenses)	(15,331,613)	(12,314,637)	(3,016,976)
Net Income (Loss) before capital contributions	9,087,581	17,029,296	(7,941,715)
Capital Contributions			
Grants from US Government	11,601,625	19,975,136	(8,373,511)
Grants from GovGuam & Others	-	18,308	(18,308)
Other Contributions	-	-	-
Total Capital Contributions	11,601,625	19,993,444	(8,391,820)
Change in Net Assets	$ 20,689,206	$ 37,022,740	$ (16,333,534)

Debt Service Calculation		
Earnings From Operations	$ 24,419,194	$ 29,343,933
System Development Charge	(1,031,817)	(799,284)
Retiree COLA	548,167	544,500
Interest/Investment Income	429,841	110,350
Depreciation	16,809,925	15,422,417
Balance Available for Debt Service per Section 6.12	41,175,310	44,621,916
Working Capital Reserve Available for Debt Service	10,253,476	10,253,476
Transfer to Working Capital- Debt Service Reserve	-	-
Transfer to Working Capital- O&M Reserve	-	-
Balance Available for Debt Service inclusive of reserves	51,428,786	54,875,392
Debt Service		
Principal	4,766,667	4,620,000
Interest	19,744,010	17,895,443
Total	$ 24,510,677	$ 22,515,443
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.68	1.98
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	2.10	2.44

GUAM WATERWORKS AUTHORITY
Bond Compliance Summary
FY 2018

SCHEDULE F

		($$$) Per Indenture	As of 8/31/18 ($$$) Bond Series 2010/2013/2014/2016/2017
• 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, 2016 and 2017 Refunding)*	$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 August 31, 2018	Audited September 30, 2017	Increase (Decrease)
Unrestricted			
Change Fund	$ 2,000	$ 2,000	$ -
Petty Cash	5,000	5,000	-
BOG - Deposit Accounts	1,065,011	4,866,275	(3,801,264)
Sub-total Unrestricted	1,072,011	4,873,275	(3,801,264)
Restricted			
Collection Accounts	119,804	163,466	(43,662)
BOG Deposit Accounts	7,528,201	6,051,064	1,477,137
BP Deposit Accounts	875,205	944,282	(69,077)
BOG Revenue Trust Fund	8,042,298	7,782,227	260,071
BOG O & M Reserve	13,647,939	13,516,540	131,398
BOG Debt Service Reserve	11,326,886	11,217,733	109,153
BOG CAPEX Fund	18,142,063	15,462,869	2,679,194
	59,682,395	55,138,182	4,544,213
BOG - SDC Deposit	3,570,794	1,486,219	2,084,576
BOG - SDC CDs	7,500,000	8,500,000	(1,000,000)
Total Restricted	70,753,189	65,124,400	5,628,789
Reserve Funds			
BOG Series 05 OMRRRF Fund	17,423,213	17,423,213	-
BOG Series 13 Construction Fund	39,104,692	74,461,765	(35,357,073)
BOG Series 14 Refunding Construction Fund	740,909	771,281	(30,372)
BOG Series 16 Construction Fund	117,594,849	132,811,449	(15,216,599)
BOG Series 16 Cap Int Fund	-	1,782,982	(1,782,982)
BOG Series 17 Refunding Construction Fund	7,691,700	9,299,311	(1,607,611)
BOG Series 17 Refunding COI Fund	-	-	-
Total Restricted - Held by Trustee	182,555,364	236,550,002	(53,994,638)
USB Series 2013 Debt Service Fund	1,581,028	2,336,754	(755,726)
USB Series 2013 Debt Service Reserve Fund	12,031,688	12,031,688	-
USB Series 2014 Refunding Debt Service Fund	1,231,140	1,796,559	(565,418)
USB Series 2014 Refunding Debt Service Reserve Fund	7,931,365	7,707,602	223,763
USB Series 2016 Debt Service Fund	1,207,070	130	1,206,940
USB Series 2016 Debt Service Reserve Fund	7,594,600	7,582,725	11,875
USB Series 2010 Debt Service Fund	2,062,974	2,020,121	42,853
USB Series 2017 Refunding Debt Service Reserve Fund	7,566,460	7,566,460	-
USB Series 2017 Debt Service Fund	955,682	-	955,682
Total Investments	42,162,007	41,042,038	1,119,969
Total Restricted and Unrestricted Cash	$ 296,542,571	$ 347,589,716	$ (51,047,144)

SCHEDULE H

Guam Waterworks Authority
Statement of Cash Flows (Unaudited)
FY 2018

	YTD Aug-18
Increase (decrease) in cash	
Cash flows from operating activities:	
Cash received from trade and others	$ 99,195,080
Cash payments to suppliers/contractors for goods and services	(33,936,153)
Cash payments to employees for services	(23,893,855)
Net cash provided by operating activities	41,365,072
Cash flows from capital and related financing activities:	
Contributed capital received (grants)	16,773,809
Acquisition of utility plant	(80,219,598)
Repayment of Long Term Debt	9,441,683
Interest expense	(29,659,479)
Net cash provided by (used in) capital and related financing activities	(83,663,586)
Cash flows from investing activities:	
Transfers from (to) restricted fund	35,523,433
Interest income received	2,973,817
Net cash provided by investing activities	38,497,250
Net increase (decrease) in cash	(3,801,264)
Unrestricted cash at beginning of the period	4,873,275
Unrestricted cash at end of period	$ 1,072,011
Reconciliation of operating loss to net cash provided by operating activities:	
Operating Income (loss)	$ 24,419,194
Adjustments to reconcile to net cash provided by operating activities:	
Depreciation expense	16,809,925
Other Expense/income	848,129
(Increase) decrease in assets:	
Accounts receivable	(3,849)
Materials and supplies inventory	(1,000,323)
Other Assets	(343,349)
Increase (decrease) in liabilities:	
Accounts payable, Contractors, Retention & Escrow Deposit	1,368,399
Accrued payroll	(713,942)
Customer deposits	(19,113)
Net cash provided by operating activities	$ 41,365,072

Guam Waterworks Authority
Accounts Receivable - Government
As of August 31, 2018

SCHEDULE I

		AGING					
Customer Name	**No of Accounts**	**Current**	**31-60 days**	**61-90 days**	**91-120 days**	**Over 120 days**	**Outstanding Bal.**
Guam Int'l Airport Authority	4	$ 30,151	$ 32,214	$ 42,020	$ 18,700	$ 177,277	$ 300,362
Guam Memorial Hospital Authority	3	32,516	34,972	32,512	-	-	99,999
Port Authority of Guam	2	37,589	33,172	-	-	-	70,761
Guam Power Authority	22	27,409	-	-	-	-	27,409
University of Guam	2	8,061	-	-	-	-	8,061
Guam Housing & Urban Renewal Authority	4	1,076	-	-	-	-	1,076
Guam Housing Corporation	1	30	-	-	-	-	30
AUTONOMOUS AGENCIES	**38**	**$ 136,831**	**$ 100,358**	**$ 74,532**	**$ 18,700**	**$ 177,277**	**$ 507,698**
Department of Parks & Recreation	17	$ 92,552	$ 90,783	$ 60,590	$ 46,033	$ 487,058	$ 777,017
Department of Education	49	193,462	131,885	55,228	14,630	116,937	512,141
Department of Corrections	8	80,749	75,493	35,483	40,129	23,937	255,791
Department of Public Health & Social Services	6	5,132	1,053	1,665	834	102,274	110,958
Mayors Council of Guam	37	11,060	43	70	11	-	11,184
Guam Fire Department	8	6,354	1,865	66	-	-	8,284
Office of the Governor	2	4,723	-	-	-	-	4,723
Sanctuary Inc	1	3,471	-	-	-	-	3,471
Department of Agriculture	2	1,837	1,400	-	-	-	3,238
Department of Military Affairs/GUARNG	1	3,155	-	-	-	-	3,155
Department of Public Works	9	1,715	-	-	-	-	1,715
Guam Police Department	2	1,263	-	-	-	-	1,263
Department of Youth Affairs	1	1,068	-	-	-	-	1,068
Division of Senior Citizens, DPH&SS	2	669	172	161	17	-	1,020
Guam Public Library	4	532	-	-	-	-	532
Department of Administration	1	270	-	-	-	-	270
Guam Energy Office	1	240	-	-	-	-	240
Guam Veterans Affairs Office	2	148	-	-	-	-	148
The Office of The Dededo Mayor	1	116	-	-	-	-	116
Department of Public Health	1	107	-	-	-	-	107
Merizo Mayor	1	27	34	-	-	-	61
Vietnam Veteran of America	1	25	-	-	-	-	25
Guam Solid Waste Authority	1	23	-	-	-	-	23
LINE AGENCIES	**158**	**$ 408,699**	**$ 302,728**	**$ 153,262**	**$ 101,655**	**$ 730,207**	**$ 1,696,551**
TOTAL August 31, 2018	**196**	**$ 545,530**	**$ 403,086**	**$ 227,794**	**$ 120,355**	**$ 907,483**	**$ 2,204,248**
TOTAL September 30, 2017	**253**	**$ 715,578**	**$ 442,522**	**$ 169,120**	**$ 72,476**	**$ 396,347**	**$ 1,796,043**
% INCREASE/ (DECREASE)	**-23%**	**-24%**	**-9%**	**35%**	**66%**	**129%**	**23%**

GUAM WATERWORKS AUTHORITY
2013 Series Bond Project Status
As of August 31, 2018

SCHEDULE J

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 08/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 08/31/18
Santa Rita Springs Booster Pump Rehab Phase II	$ 100,000	$ 100,000	100,000	-	$ 100,000	$ -	$ -
"A" Series Well Transmission Line	$ 400,000	$ 369,846	369,846	(0)	$ 369,846	$ 0	$ 0
Water Booster Pump Station	$ 6,000,000	$ 1,679,964	1,656,428	23,536	$ 1,679,964	$ (0)	$ 23,536
Meter Replacement Program		$ 996,532	996,532	-	$ 996,532	$ (0)	$ (0)
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	$ 16,916	16,916	-	$ 16,916	$ (0)	$ (0)
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	$ -			$ -	$ -	$ -
Master Meters	$ 4,000,000	$ 712,060	531,188	180,872	$ 712,060	$ (0)	$ 180,872
Ugum Water Treatment Plant Intake	$ 1,000,000	$ 859,801	578,858	280,943	$ 859,801	$ 0	$ 280,943
Water Wells	$ 4,200,000	$ 3,030,029	2,284,474	745,555	$ 3,030,029	$ 0	$ 745,556
Water Distribution System	$ 12,000,000	$ 10,912,453	7,576,647	3,335,806	$ 10,912,453	$ 0	$ 3,335,806
Pressure Zone Realignment /	$ 1,000,000	$ 337,110	336,036	1,074	$ 337,110	$ 0	$ 1,074
Mechanical/Electrical Equipment	$ 430,000	$ 426,799	328,686	98,112	$ 426,798	$ 1	$ 98,113
Water Reservoir Internal/External	$ 800,000	$ -			$ -	$ -	$ -
Water System Reservoirs 2005 Improvements	$ 21,000,000	$ 13,878,000	10,897,321	2,980,680	$ 13,878,000	$ (0)	$ 2,980,679
Ugum Water Treatment Plant Reservoir	$ 7,000,000	$ -			$ -	$ -	$ -
Agana Heights & Chaot Tanks	$ 4,500,000	$ 1,330,287	241,603	1,088,684	$ 1,330,287	$ (0)	$ 1,088,684
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 13,500,000	$ 11,605,000	9,024,195	2,580,805	$ 11,605,000	$ 0	$ 2,580,805
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	$ 650,901	566,364	84,536	$ 650,900	$ 1	$ 84,537
Lift Station Upgrades	$ 5,000,000	$ 563,148	562,785	363	$ 563,149	$ (1)	$ 363
Wastewater Collection System Repl/Rehab	$ 6,500,000	$ 660,313	578,438	81,875	$ 660,314	$ (0)	$ 81,875
Baza Gardens STP Replacement		$ 9,656,874	2,688,166	6,938,499	$ 9,626,664	$ 30,210	$ 6,968,708
Facilities Plan/Design for Umatac-Merizo WWTP		$ 371,699	364,527	7,172	$ 371,699	$ (0)	$ 7,172
Agat/Santa Rita STP Replacement	$ 19,000,000	$ 67,200,000	49,293,824	17,590,368	$ 66,884,192	$ 315,808	$ 17,906,176
Agana WWTP Interim Measures		$ 673,000	624,129	48,871	$ 673,000	$ (0)	$ 48,871
Umatac Merizo Replacement	$ 2,000,000	$ -			$ -	$ -	$ -
Wastewater Pump Station Electrical Upgrade	$ 620,000	$ 99,861	91,348	8,513	$ 99,861	$ 0	$ 8,513
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	$ -			$ -	$ -	$ -
Electrical Upgrade -Water Booster	$ 350,000	$ 977	977	-	$ 977	$ -	$ -
Electrical Upgrade - Other Water	$ 250,000	$ 60,700	60,700	-	$ 60,700	$ -	$ -
SCADA Improvements – Phase 3	$ 1,850,000	$ 722,359	460,592	261,767	$ 722,359	$ -	$ 261,767
SCADA Improvements – Phase 4	$ 500,000	$ -			$ -	$ -	$ -
Laboratory Modernization	$ 1,500,000	$ 1,171,465	1,163,037	8,428	$ 1,171,465	$ 0	$ 8,428
Land Survey	$ 2,000,000	$ 1,052	1,038	15	$ 1,053	$ (1)	$ 15
General Plant Improvements / Water	$ 2,000,000	$ 2,441,737	1,265,043	1,176,695	$ 2,441,737	$ (0)	$ 1,176,694
Allowance for COI							$ 275,005
Interest Earned							$ 825,243
Total Construction Fund	**$ 139,325,000**	**$ 139,325,000**	**$ 101,320,556**	**$ 37,658,426**	**$ 138,978,983**	**$ 346,017**	**$ 39,104,692**

GUAM WATERWORKS AUTHORITY
2014 Series Refunded Bond Project Status
As of August 31, 2018

SCHEDULE K

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 08/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	20% PUC AS OF 08/31/18	CONSTRUCTION FUND BALANCE AS OF 08/31/18
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	$ 17,468,359.32	$ 0	$ 2,514,413	$ 597,837
Interest Earned	$ 6,781,612	$ (0)				$ (0)		$ 9,847
Total Construction Fund	**$ 89,711,698**	**$ 89,711,698**	**$ 88,981,263**	**$ 669,600**	**$ 89,711,543**	**$ 1**	**$ 13,990,813**	**$ 740,909**

GUAM WATERWORKS AUTHORITY
2016 Series Bond Project Status
As of August 31, 2018

SCHEDULE L

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 08/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	CONSTRUCTION FUND BALANCE AS OF 08/31/18
Water Booster Pump Station	$ 4,139,000	$ -			$ -	$ -	$ -
Meter Replacement Program	$ 4,501,000	$ 1,400,000	103,622	46,377.65	$ 150,000	$ 1,250,000	$ 1,296,378
Barrigada Tank Repair/Replacement	$ 1,013,000	$ -		-	$ -	$ -	$ -
Leak Detection	$ 1,180,000	$ 100,000		-	$ -	$ 100,000	$ 100,000
Potable Water System Planning	$ 2,276,000	$ 876,294	328,374	547,919.75	$ 876,294	$ -	$ 547,920
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	$ 2,151,539	151,539	-	$ 151,539	$ 2,000,000	$ 2,000,000
Ugum Water Treatment Plant Intake	$ 18,000	$ -			$ -	$ -	$ -
Water Wells	$ 2,500,000	$ 2,500,000			$ -	$ 2,500,000	$ 2,500,000
Water Distribution System	$ 2,049,000	$ -			$ -	$ -	$ -
Pressure Zone Realignment /	$ 1,141,000	$ 1,141,000		741,000.20	$ 741,000	$ 400,000	$ 1,141,000
Mechanical/Electrical Equipment	$ 100,000	$ -			$ -	$ -	$ -
Water Reservoir Internal/External	$ 800,000	$ 800,000		800,000.00	$ 800,000	$ -	$ 800,000
Water System Reservoirs 2005 Improvements	$ 42,350,000	$ 58,830,170	2,263,037	13,863,844.72	$ 16,126,882	$ 42,703,288	$ 56,567,133
Ugum Water Treatment Plant Reservoir	$ 6,410,000	$ -			$ -	$ -	$ -
Water Audit Program & Water Loss Control Plan	$ 1,000,000	$ 550,000		389,561.70	$ 389,562	$ 160,438	$ 550,000
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	$ 1,822,133		1,822,132.80	$ 1,822,133	$ 0	$ 1,822,133
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 10,500,000	$ 7,300,000		7,300,000.00	$ 7,300,000	$ -	$ 7,300,000
Fire Hydrant Replacement Program	$ 2,000,000	$ 1,200,000			$ -	$ 1,200,000	$ 1,200,000
Wastewater System Planning	$ 349,000	$ 312,983	203,642	109,341.00	$ 312,983	$ -	$ 109,341
Lift Station Upgrades	$ 2,404,000	$ 1,714,755	228,622	36,133.00	$ 264,755	$ 1,450,000	$ 1,486,133
Wastewater Collection System Repl/Rehab	$ 2,920,000	$ 1,055,478	1317.71	554,160.29	$ 555,478	$ 500,000	$ 1,054,160
Baza Gardens STP Replacement	$ 16,700,000	$ 22,663,776	12,842,806	9,820,968.68	$ 22,663,775	$ 1	$ 9,820,970
Facilities Plan/Design for Umatac-Merizo WWTP	$ 527,000	$ 252,105	239,065	13,040.11	$ 252,105	$ -	$ 13,040
Agat/Santa Rita STP Replacement	$ 3,000,000	$ 2,002,331	1,273,611	271,477.03	$ 1,545,088	$ 457,243	$ 728,720
Agana WWTP Interim Measures	$ 827,000	$ -			$ -	$ -	$ -
Umatac Merizo Replacement	$ 8,000,000	$ 20,800,000	4,135,530	16,490,345.33	$ 20,625,875	$ 174,125	$ 16,664,470
Wastewater Pump Station Electrical Upgrade	$ 100,000	$ -			$ -	$ -	$ -
Electrical Upgrade - Water Wells	$ 650,000	$ -			$ -	$ -	$ -
Electrical Upgrade - Water Booster	$ 323,000	$ -			$ -	$ -	$ -
SCADA Improvements – Phase 3	$ 1,177,000	$ 1,077,497	18,000	599,496.51	$ 617,497	$ 460,000	$ 1,059,497
SCADA Improvements – Phase 4	$ 6,500,000	$ 4,378,118		3,398,748.85	$ 3,398,749	$ 979,369	$ 4,378,118
Laboratory Modernization	$ 1,127,000	$ 1,127,000	1,127,000	-	$ 1,127,000	$ -	$ -
Land Survey	$ 1,998,000	$ 1,260,524	130,370	1,130,153.37	$ 1,260,524	$ 0	$ 1,130,154
General Plant Improvements / Water	$ 2,769,463	$ 1,543,760	716,554	827,205.38	$ 1,543,760	$ 0	$ 827,206
Information Technology Integration Improvements	$ 500,000	$ 500,000	244,068	-	$ 244,068	$ 255,932	$ 255,932
Interest Earned		$ -					$ 1,582,545
Total Construction Fund	**$ 140,019,463**	**$ 140,019,463**	**$ 24,007,159**	**$ 59,371,919**	**$ 83,379,078**	**$ 56,640,385**	**$ 117,594,849**

GUAM WATERWORKS AUTHORITY
2017 Series Refunded Bond Project Status
As of August 31, 2018

SCHEDULE M

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 08/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	CONSTRUCTION FUND BALANCE AS OF 08/31/18
Ground Water Disinfection	$ -	$ 500,000	$ 438,141	$ 61,859	$ 500,000	$ 0	$ 61,859
"A" Series Well Transmission Line	$ 600,000	$ 475,709	$ 474,434	$ 1,274	$ 475,709	$ 0	$ 1,275
Water Booster Pump Station	$ 500,000	$ 500,000	$ 418,844	$ 81,156	$ 500,000	$ (0)	$ 81,156
Meter Replacement Program	$ 2,500,000	$ 10,450,000	$ 10,255,079	$ 18,549	$ 10,273,628	$ 176,372	$ 194,921
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		$ 1,699,999	$ 1,499,464	$ 200,535	$ 1,700,000	$ (1)	$ 200,535
Brigade II (Ugum Lift) BPS Upgrade	$ 1,200,000	$ 1,900,000	$ 251,134	$ 117,330	$ 368,464	$ 1,531,536	$ 1,648,866
Deep Well Rehabilitation	$ 548,000	$ 548,000	$ 548,000	$ -	$ 548,000	$ -	$ -
New Deep Wells at Down Hard	$ 3,773,000	$ 485,743	$ 485,743	$ -	$ 485,743	$ 0	$ 0
Rehabilitation of Asan Springs	$ 900,000	$ 1,100,000	$ 188,771	$ 152,068	$ 340,838	$ 759,162	$ 911,229
Master Meters	$ 1,600,000	$ 1,489,957	$ 1,421,267	$ 68,690	$ 1,489,957	$ (0)	$ 68,690
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	$ 775,002	$ 730,182	$ 44,820	$ 775,002	$ (0)	$ 44,820
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	$ 2,150,000	$ 1,083,817	$ 425,567	$ 1,509,384	$ 640,616	$ 1,066,183
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		$ 78,459	$ 15,031	$ 63,428	$ 78,459	$ 0	$ 63,429
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		$ 1,848,013	$ 1,765,504	$ 82,510	$ 1,848,013	$ (0)	$ 82,509
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	$ 1,474,000	$ 1,468,176	$ 5,824	$ 1,474,000	$ -	$ 5,824
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		$ 1,001,323	$ 723,591	$ 277,732	$ 1,001,323	$ (0)	$ 277,732
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	$ 1,488,378	$ 1,151,947	$ 314	$ 1,152,261	$ 336,117	$ 336,431
Facilities Plan/Design for Umatac Merizo WWTP		$ 853,858	$ 760,845	$ 93,013	$ 853,858	$ 0	$ 93,013
Agat/Santa Rita STP Replacement	$ 2,968,000	$ 2,217,700	$ 2,217,314	$ 387	$ 2,217,701	$ (0)	$ 386
Northern District WWTP Primary Treatment Upgrades	$ -	$ 11,743,514	$ 11,532,253	$ 211,261	$ 11,743,514	$ 0	$ 211,261
Biosolids Management Plan		$ 200,000	$ 196,414	$ 3,586	$ 200,000	$ -	$ 3,586
Agana WWTP Interim Measures	$ -	$ 11,300,000	$ 11,254,925	$ 45,075	$ 11,300,000	$ -	$ 45,075
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	$ 499,688	$ 471,450	$ 28,237	$ 499,687	$ 1	$ 28,238
General Plant Improvements / Water	$ 14,370,000	$ 7,241,000	$ 7,241,000	$ 0	$ 7,241,000	$ 0	$ 0
Interest Earned							$ 141,578
Total Construction Fund	**$ 87,402,000**	**$ 87,402,000**	**$ 79,851,877**	**$ 4,106,319**	**$ 83,958,196**	**$ 3,443,804**	**$ 7,691,701**