Speaker's Office <speaker@guamlegislature.org>

Fwd: GWA WORK SESSION 11/20/18 / MATERIALS

2 messages

Senator Therese Terlaje <senatorterlajeguam@gmail.com>
To: speaker@guamlegislature.org

Tue, Nov 20, 2018 at 4:03 PM

Vice Speaker Therese M. Terlaje
34GL-18-2583
NOV 19 2018
Time: 16:12
Received by: CMaribusen

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The Office of Vice Speaker Therese M. Terlaje
Committee on Culture and Justice
I Mina'trentai Kuåttro na Liheslaturan Guåhan
34th Guam Legislature
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---------- Forwarded message ----------
From: **Bernadette Lou Sablan** <l.sablan@gpagwa.com>
Date: Tue, Nov 20, 2018 at 4:00 PM
Subject: GWA WORK SESSION 11/20/18 / MATERIALS
To: **Angelica Perez** <aperez@ambrokers.com>, **Ann Borja - GWA** <annborja@guamwaterworks.org>, **Annmarie Muna** (amuna@ambrokers.com) <amuna@ambrokers.com>, **Artemio S Perez** <aperez@gpagwa.com>, **Cameron Mulka** (cimiculka@guampdn.com) <cimiculka@guampdn.com>, **Chilang F Unpingco** <cfejeran@gpagwa.com>, **Chris Budasi** (cbudasi@guamwaterworks.org) <cbudasi@guamwaterworks.org>, **Fred Horecky** (horeckylaw@teleguam.net) <horeckylaw@teleguam.net>, **Gaynor Delano** (gdumat-ol@guam.gannett.com) <gdumat-ol@guam.gannett.com>, **Gilda Mafnas** <gildam@guamwaterworks.org>, **Governor's Office** <joy.unpingco@guam.gov>, **Greg P. Cruz** <gpcruz@guamwaterworks.org>, **Heidi Ballendorf** <heidi@guamwaterworks.org>, **Jams Y Kim** (pacguam@gmail.com) <pacguam@gmail.com>, **Jeff Johnson** (jeffcharjohnson@hotmail.com) <jeffcharjohnson@hotmail.com>, **Jennifer G Sablan** <jsablan@gpagwa.com>, **Jessica Peterson** (webmaster@theguamguide.com) <webmaster@theguamguide.com>, **Jessy Gogue** (ocp.mayor@gmail.com) <ocp.mayor@gmail.com>, **Joe John Mantanona** (joejohnmantanona@gmail.com) <joejohnmantanona@gmail.com>, **John O'Connor** (john@postguam.com) <john@postguam.com>, **John Reigel** (jriegel@brwncald.com) <jriegel@brwncald.com>, **Joyce N Sayama** <jsayama@gpagwa.com>, **Karla Tydingco** <ktydingco@guamwaterworks.org>, **Kevin Kerrigan** (kevin@postguam.com) <kevin@postguam.com>, **Kim Garrido** <kim.garrido@mec-guam.com>, **Louella Losinio** (louella@postguam.com) <louella@postguam.com>, **Manny Apuron** <mapuron@guamwaterworks.org>, **Manny Cruz** <mlcruz@guampdn.com>, **Maripaz N. Perez** <mnperez@gpagwa.com>, **Michael White** (whitema@cdmsmith.com) <whitema@cdmsmith.com>, **Nestor Licanto** (nestor@kuam.com) <nestor@kuam.com>, **Patricia L. Diego** <pldiego@gpagwa.com>, **PDN Newsroom** (news@guampdn.com) <news@guampdn.com>, **Peter Montinola** (peter@isuguam.com) <peter@isuguam.com>, **Selma HG Blas** <sblas@gpagwa.com>, **Steve Limtiaco** (slimtiac@guam.gannet.com) <slimtiac@guam.gannet.com>, **Telena Nelson** (senatortcnelson@gmail.com) <senatortcnelson@gmail.com>, **Therese Terlaje** (senatorterlajeguam@gmail.com) <senatorterlajeguam@gmail.com>, **Tina Thai** <tina.thai@ipehq.com>, tinathai671@gmail.com <tinathai671@gmail.com>

Hi everyone,

Attached is the pdf version for today's GWA Work Session board books / materials.

Best,

B. Lou Sablan

Board Secretary

Consolidated Commission on Utilities

Admin Asst., Legal Counsel, GPA

GLORIA B. NELSON PUBLIC SERVICE BLDG.

3RD Floor, Executive Division

688 Route 15, Mangilao, GU 96913

P.O. Box 2977, Hagatna, GU 96932

Tel: (671) 648-3002

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Email: l.sablan@gpagwa.com

Website: http://guamccu.org/

http://guampowerauthority.com/home.html

http://guamwaterworks.org/

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2 attachments

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GWA WS 11.20.18.pdf
19061K

Speaker's Office <speaker@guamlegislature.org>
To: Carl Sanchez <clerks@guamlegislature.org>, Rennae Meno <rennae@guamlegislature.org>

Tue, Nov 20, 2018 at 4

11-19-18	16:00	11-19-18	Guam Waterworks Authority Work Session Agenda and Materials for November 20, 2018 . *Email	Guam Water Works Authority	34GL-18-2583

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OFFICE OF ACTING SPEAKER THERESE M. TERLAJE
I Mina'trentai Kuåtro na Liheslaturan Guåhan
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GWA WS 11.20.18.pdf
19061K

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

GUAM WATERWORKS AUTHORITY WORK SESSION

CCU Conference Room
4:30 p.m., Tues., Nov. 20, 2018

AGENDA

1. **ISSUES FOR DECISION**
   - 1.1 **Relative to Approving the Proposed Contract with Eurofin Eaton Analytical Inc. for Laboratory Services / Resolution 02-FY2019**
   - 1.2 **Relative to Ratification of the Contract Extension with Eurofin Eaton Analytical Inc. Testing Services / Resolution 03-FY2019**
   - 1.3 **Relative to Approval of a Multi-Year Lease Agreement for Heavy Equipment / Resolution 04-FY2019**
   - 1.4 **Relative to Approval of a Two-Year Extension of the Contract with JMI Edison for the Purchase of Cationic Polymer for the Hagatna and Northern Wastewater Treatment Plants / Resolution 05-FY2019**
   - 1.5 **Relative to Approval of a Two-Year Extension of the Contract with Total Chemical Resources, Inc. for the Purchase of Anionic Polymer and ACH Aluminum Chlorhydrate for the Hagatna and Northern Wastewater Treatment Plants / Resolution 06-FY2019**
   - 1.6 **Relative to Approval of Change Order to the Construction Management Contract for the Agat-Santa Rita WWTP Upgrades / Resolution 07-FY2019**
   - 1.7 **Relative to Approval of Change Order to the Design Contract for the Agat-Santa Rita WWTP Upgrades / Resolution 08-FY2019**
   - 1.8 **Relative to Approval of Change Order to the Construction Management Contract for the Baza Gardens Wastewater Conveyance Project / Resolution 09-FY2019**

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

3. **ISSUES FOR DISCUSSION**

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 11/21/18; CCU Meeting: 11/27/18**

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. 02-FY2019
Relative to Approving the Proposed Contract with Eurofins Eaton Analytical Inc. for Laboratory Services

What is the project's objective and is it necessary and urgent?
The objective is to provide a US Environmental Protection Agency certified lab services for analysis of water and wastewater samples provided by GWA. The laboratory services are necessary and urgent to comply with federal and local laws and regulations.

Where is the location?
Samples will be collected from GWA facilities around the island, and prepared for shipment at the new GWA Laboratory facility in upper Tumon. EPA-certified laboratory services will be provided from Eurofins' laboratory facilities within California.

How much will it cost?
The cost per year is $405,638.00 with a total cost of $1,216,914.00 for three (3) years.

When will it be completed?
The contract is set for a term of 3 years with an option to extend to a total of 5 years.

What is the funding source?
Internal cash flow.

The RFP/BID responses (if applicable):
- 9 downloaded
- 1 submitted
- Eurofin Eaton Analytical Inc. awarded the bid.

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

RESOLUTION NO. 02-FY2019

RELATIVE TO APPROVING THE PROPOSED CONTRACT WITH EUROFINS EATON ANALYTICAL INC. FOR LABORATORY TESTING SERVICES

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 Laboratory Services Contract GWA was looking to replace was competitively procured in 2013 with the contract going into effect on August 2, 2013 and after completing two extensions was set to expire on August 2, 2018; and

WHEREAS, on May 7, 2018, GWA put out an Invitation for Bid (IFB) for an Indefinite Quantity / Indefinite Delivery (ID/IQ) contract that was opened on May 23, 2018, soliciting bid proposals from experienced and responsive bidders for a US Environmental Protection Agency certified lab to analyze water and wastewater sample provided by the Guam Waterworks Authority ("GWA") in a manner that meets the "Standardized Monitoring Requirements" established by the Guam Environmental Protection Agency as provided under the Safe Drinking Water Act and the Guam Primary and Secondary Safe Drinking Water Regulations; and

WHEREAS, after a thorough analysis of the two bids offered at that time, GWA determined that neither bidder was entirely responsive to the technical requirements set forth in the procurement and all bids were rejected; and

WHEREAS, the procurement documents were revised by GWA regulatory and compliance personnel in preparation to re-bid the solicitation; and

WHEREAS, on September 10, 2018, GWA advertised by Invitation for Bid (IFB) 2018-33 soliciting ID/IQ bid proposals from experienced and responsive bidders for a US Environmental Protection Agency certified lab to analyze water and wastewater sample provided by the Guam Waterworks Authority ("GWA") in a manner that meets the "Standardized Monitoring Requirements" established by the Guam Environmental Protection Agency as provided under the Safe Drinking Water Act and the Guam Primary and Secondary Safe Drinking Water Regulations; and

WHEREAS, nine (9) firms pick up a bid package, and on October 9, 2018, GWA received only one bid from Eurofins Eaton Analytical Inc. ("Eurofins") meeting the requirements of IFB 2018-33 (see Exhibit A); and

WHEREAS, on October 12, 2018, the IFB 2018-33 offers were evaluated by GWA's review committee and determined that the best offer was made by Eurofins (see Exhibit B); and

WHEREAS, On October 19, 2018, GWA issued a Notice of Conditional Award to Eurofins and received an acknowledgement of such from Eurofins on October 26, 2018 (see Exhibit C); and

WHEREAS, GWA Management seeks CCU approval of the ID/IQ contract, with an estimated total contract amount of One Million Two Hundred Sixteen Thousand Nine Hundred Fourteen Dollars ($1,216,914.00) for three (3) years, with the option to renew for an additional two (2) one (1) year terms which, if there is no escalation in price, would be Four Hundred Five Thousand Six Hundred Thirty-Eight Dollars ($405,638.00) for each additional option year; and

WHEREAS, the PUC review threshold is 120% of the total aggregate cost of the entire 5-year estimated contract term of Two Million Twenty-Eight Thousand One Hundred Ninety-

One Dollars ($2,028,191.00) for a total amount including the contingency of Two Million Four Hundred Thirty-Three Thousand Eight Hundred Twenty-Eight Dollars ($2,433,828.00); and

WHEREAS, GWA further seeks CCU approval to petition the PUC for its approval under the Contract Review Protocol to award the contract to Eurofins for three (3) years for the total amount of One Million Two Hundred Sixteen Thousand Nine Hundred Fourteen Dollars ($1,216,914.00), with the option to renew for an additional two (2) one (1) year terms for a total aggregate approval request of Two Million Four Hundred Thirty-Three Thousand Eight Hundred Twenty-Eight Dollars ($2,433,828.00); and

WHEREAS, the CCU has determined that GWA may use this Resolution as a justification under Section 6 of the Contract Review Protocol since no other alternatives are available, GWA received only one bid and the services sought are necessary for GWA to comply with federal and local laws and testing with certified labs is required by the U.S. Environmental Protection Agency.

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the bid proposal submitted by Eurofin is reasonable, prudent and necessary (Exhibit A).
3. The CCU hereby further authorizes the management of GWA to enter into a contract with Eurofins, to analyze water and wastewater samples for the initial contract term of three (3) years as specified in the IFB 2018-33 “Indefinite Quantity Bid”, with the option to renew for an additional two (2) one (1) year terms, subject to availability of funds and agreement between parties.
4. The CCU hereby further approves the funding total of One Million Two Hundred Sixteen Thousand Nine Hundred Fourteen Dollars ($1,216,914.00) and a total five-year funding approval not to exceed Two Million Four

Hundred Thirty-Three Thousand Eight Hundred Twenty-Eight Dollars ($2,433,828.00).

5. GWA Management is authorized to seek from the PUC its approval as required under the Contract Review Protocol, to award the contract to Eurofins for the three (3) year term in the amount of One Million Two Hundred Sixteen Thousand Nine Hundred Fourteen Dollars ($1,216,914.00) with an option to renew for an additional two (2) one (1) year terms for a total aggregate amount for approval of Two Million Four Hundred Thirty-Three Thousand Eight Hundred Twenty-Eight Dollars ($2,433,828.00).
6. The CCU further determines that GWA may use this Resolution as a justification under Section 6 of the Contract Review Protocol.

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

DULY AND REGULARLY ADOPTED, this 27th day of November, 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: _____

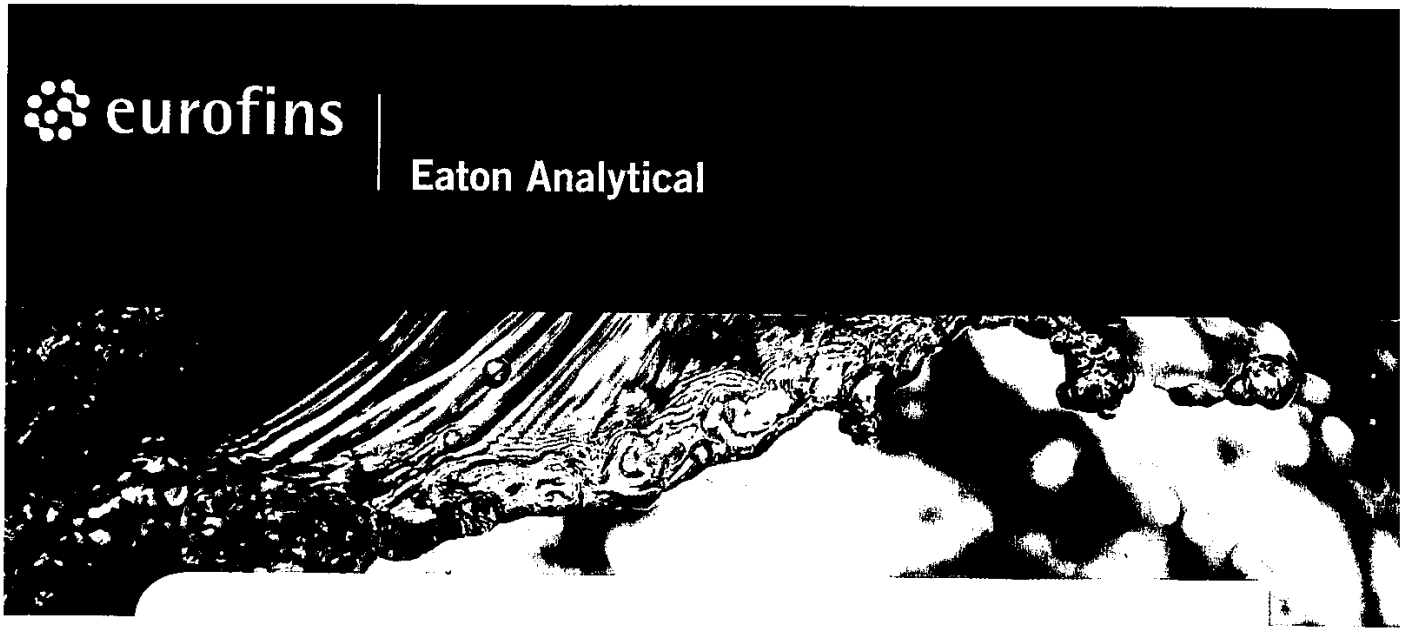
ABSTENTIONS: _____

ABSENT: _____

///

DRAFT

EXHIBIT A



Laboratory Services
Guam Waterworks Authority

ITB # 2018-33
October 9, 2018

Prepared by Eurofins Eaton Analytical, LLC

www.EurofinsUS.com/Eaton

Monrovia Laboratory
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016
Tel | (626) 386-1100
Fax | (866) 988-3757

South Bend Laboratory
110 South Hill Street
South Bend, IN 46617
Tel | (574) 233-4777
Fax | (574) 223-8207

eurofins | Eaton Analytical

October 3, 2018

Guam Waterworks Authority
Procurement Office - 1st Floor
Gloria B. Nelson Public Services Building - 688 Route 15
Mangilao, GU 96913

Dear Members of the Selection Committee:

Eurofins Eaton Analytical, LLC (**Eurofins**) has served as Guam Waterworks Authority's (GWA's) contractor for laboratory services for more than 15 years. Our long-standing, successful track record of service and performance is testament to Eurofins' commitment to you, working together with Mr. Bordallo and his team to ensure safe and available water to the residents of Guam. To this end, we are very pleased to submit the enclosed **bid in response to IFB #2018-33**.

Meeting U.S. EPA regulatory drinking water and wastewater compliance requirements is no small undertaking. Through years of experience, Eurofins has established a **unique method to ensure your successful compliance** with these monitoring requirements.

- **Eurofins is familiar with the water quality of GWA**'s village wells, springs, surface water and treatment facilities. We can anticipate expected constituent concentrations, understand any regulatory compliance implications and communicate relevant information to GWA staff in advance of final reporting to provide advanced notice for public or regulatory concerns.
- **Eurofins is established in the regulatory community**, where we have long-standing relationships with staff at EPA Headquarters, Region 9 and Guam EPA (GEPA). These relationships help us facilitate compliance solutions for GWA concerning analytical and data questions that inevitably arise as a result of complex delivery logistics and matrix concerns.
- **Eurofins is experienced in the deployment and management of supplies and samples** to/from Guam where the 3-day minimum delivery time requires certain controls and contingencies to ensure samples are received on time and within temperature.
- **Eurofins is sufficiently qualified and capable** to process the extensive sample locations and unique analytical requirements of GWA. Our facility is the largest water-only testing laboratory in the United States, accredited and approved by the EPA, TNI, ISO and GEPA.

Thank you very much for your continued confidence in Eurofins.

Respectfully Submitted,
EUROFINS EATON ANALYTICAL, LLC

Rick Zimmer
Senior Account Manager

Eurofins Eaton Analytical, LLC
750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629
T 626-386-1100
F 626-386-1101
www.EurofinsUS.com/Eaton

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- Non-Collusion Affidavit
- Certification of Non-employment of Convicted Sexual Offenders
- Major Shareholder Disclosure Affidavit

Appendix C: Supporting Documentation.....32

- Eurofins Eaton Analytical NELAP Certification
- Eurofins Eaton Analytical Guam EPA Certificate
- Eurofins Eaton Analytical UCMR4 EPA Approval Certificate
- MDL/RL Table

EXECUTIVE SUMMARY

A Long-Standing and Successful Partnership

- In the spring of 2000, Eurofins was contacted by the Mr. Angel Marquez and Ms. Carmen Sian-Denton of Guam EPA in response to a regulatory order by EPA Region 9 to complete Safe Drinking Water Phase 2/5 compliance testing. Subsequent conference calls and site visits by Eurofins with Mr. Bert Johnson established our credibility with GWA (at that time known as Public Utility Agency of Guam (PUAG) and our first work in support of your compliance requirements.
- In 2003, Eurofins mobilized in response to Dept. of Justice filing to mandate GWA's compliance with drinking water and wastewater regulations. We worked closely with GWA and EPA staff to facilitate timely and successful compliance with GWA's Unregulated Contaminants Monitoring Rule (UCMR) 1 regulation.
- In 2005, Eurofins worked with GWA on an extended payment plan to pay off its account past due balance of >$50,000. Because we understand the unique cash flow and other competing priorities on Guam, our firm has always offered the utmost in flexibility to GWA to allow for a flexible payment schedule without disrupting the delivery of supplies and analysis/reporting of compliance samples as required by GEPA.
- In 2006, Eurofins worked closely with Ms. Denton and Mr. Paul Kemp to develop a schedule for upgrading GWA's in-house water quality laboratory so that more samples can be self-conducted by GWA rather than ship to Eurofins, thus, saving GWA thousands of dollars in analytical costs.
- In 2007, Eurofins collaborated with GWA and EPA on monitoring to satisfy GEPA's groundwater under the influence well evaluations. Testing included the analysis of well samples for Giardia/Cryptosporidium and Microscopic Particulate Analysis. That same year, we assisted GWA with the evaluation of sample shipping costs and facilitate transition from DHL to Federal Express which resulted in substantial freight cost savings for GWA.
- In 2009, Eurofins stepped in at the last minute to complete GWA's Lead and Copper Rule (LCR) monitoring when WERI's testing laboratory was unable to complete this task. In 2009, we also facilitated GWA's successful completion of the UCMR2 regulation.
- In 2011 Eurofins again extended flexible payment terms to GWA to facilitate the eventual pay off of >$80,000 in past due analytical invoices without disrupting the supply and delivery of compliance reports to GWA.
- In 2012, Eurofins assisted GWA with development of analytical budgets and compliance scopes of work to complete UCMR3 regulations and court-ordered NPDES annual testing at all 5 wastewater plants as well as implementation of special monitoring projects at GIAA.

- In 2015, Eurofins worked with Ken Patton @Promium to develop an electronic data deliverable (EDD) compatible with GWA's new Element LIMS to eliminate data transcription and entry errors.
- In 2016, Eurofins helped facilitate GWA's monitoring response to the EPA's new 70 ppt combined Health Advisories for Perfluorooctane sulfonate (PFOS) and Perfluorooctanoic acid (PFOA). These contaminants were detected at certain GWA wells during UCMR3 and with the EPA action added heightened scrutiny and concern to this emerging contaminant issue.
- In 2017, Eurofins provided GWA with a detailed budget for compliance with UCMR4 which helped facilitate discussions between GWA and EPA Region 9 concerning a potential Groundwater Representative Monitoring Plan (GRMP).

A Contractor that meets the Required Laboratory Responsibilities

1. We provide location specific sample kits + 10% contingency at least 10 days in advance of the scheduled sample collection event. Our kits are pre-labeled (both cooler and containers) to minimize any unnecessary field time required of your operations/distribution staff.
2. We adhere to and utilize only EPA and/or GEPA approved test methods and procedures. For some methods (Perchlorate, Nitrosamines, Hexavalent Chromium, PFAS compounds) we actually assisted the regulatory develop/validate the final test procedures.
3. We designate a single, experienced point of contact to review and communicate results to GWA staff in advance of final reporting. We recognize that nobody knows GWA's system better that GWA, which is why we relay analytical detects to GWA in advance of final reporting to provide additional insight and context to the values that will eventually be submitted to EPA and/or GEPA and also to facilitate your management of plant operations and distribution water quality.
4. We maintain sufficient analytical capability and capacity to receive/process GWA samples for reporting within 5 days after completion of analysis. Eurofins maintains the largest analytical capacity for water testing in the U.S. As an added contingency, we also operate a 2nd, TNI-accredited, full-service lab in South Bend, Indiana available for back-up.
5. We provide Chain of Custody forms with instructions for ensuring proper sample collection which meets EPA and GEPA compliance requirements.
6. We generate electronic reports in formats compliance with EPA, GEPA and GWA information systems, including deliverables compatible with SIDWIS-State. Eurofins also offers GWA secure, web-based access to analytical documents plus an online data mining feature to help with Consumer Confidence Report (CCR) production.

Eurofins is very pleased and proud to have served and supported GWA over the years and we look forward to continuing our successful partnership well into the future.

eurofins
Eaton Analytical

EXPERIENCE

Industry Resume

Eurofins provides water testing for almost 500 public agencies across the United States. Our resume of experience as a water testing leader includes work on many significant and high profile projects involving regulated and emerging contaminants at the Federal and State level:

- EPA contractor for the National Pesticide Survey (1987-88)
- California Association of Testing Labs founding member
- California ELTAC member (1990-present) and chair (2016-17)
- Standard Methods Joint Editorial Board chair/member (1992-present)
- Information Collection Rule accredited laboratory (1997-99)
- EPA contractor for UCMR Methods Validation (2000-Present)
- US Bureau of Reclamation contractor for Cal Delta surveillance program (2000-Present)
- EPA contractor for UCMR Database Beta Testing (2001-2009)
- EPA LT2 ESWTR laboratory stakeholder (2001-Present)
- EPA contractor for UCMR Small Systems (2001-Present)
- US Geological Survey contract laboratory supporting GAMA program (2004-2007)
- EPA method Co-Author for Perchlorate EPA 314 (2010)
- WaterRF 4167 Methods for PPCP analysis Co-Principal Investigator (2012)
- California Contaminants of Emerging Concern Blue Ribbon Panel participant (2013)
- EPA collaborator verifying Nitrosamines method alternatives (2014-Present)
- AWWA Technical Advisory Workgroup stakeholder for the CCL (2012-Present)

Eurofins is also routinely called upon by industry associations and instrumentation providers to provide technical expertise and input with new methods and to validate analytical alternatives to enhance existing EPA methods. Examples include:

- Ion Chromatography verification in both water & wastewater matrices (Dionex, 1984)
- Evaluation of Analytical Methods for Arsenic for Arsenic MCL (AWWARF, 1994)
- Gamma Spec analysis for Radium (Georgia Tech Research Institute, 2008)
- Luminescence technology for Assimilable Organic Carbon analysis (Suez, 2010)
- GC Triple Quad MS for Nitrosamines (Agilent, 2014)
- High Resolution Orbitrap Mass Spectrometry for PFCs and Hormones (Thermo, 2014)
- Evaluation of Radionuclide methods (AWWA, 2011 and 2015)

Our client list also includes virtually every municipal agency in the Pacific region:

Guam Waterworks Authority	Honolulu BWS
Navy Guam	Maui Dept of Water
WERI	Hawaii BWS
Guam EPA	Kauai Water Dept
Commonwealth Utilities Corp	Hawaii American Water Company
CNMI BECQ	Hawaii DOH
American Samoa Power Authority	Palau EQPB
American Samoa EPA	U.S. Army CHPPM Japan

National References

In addition to our local clients, Eurofins also supports testing and compliance monitoring programs for some of the largest water systems across the United States, including New York City DEP, Miami Dade Water & Sewer, City of Tampa, Massachusetts Water Resources Authority, Minneapolis Waterworks, New Orleans Sewerage & Water Board, Kansas City BPU, Denver Water, Salt Lake City Corporation, City of Phoenix, City of San Diego, Orange County Water District, Los Angeles Department of Water & Power, San Francisco PUC and Portland Water Bureau. Our water quality testing services have also been utilities by municipal agencies and contractors in the Philippines, Australia, China, Japan, Singapore, Russia, Iraq, Israel, Great Britain, Canada, France, Mexico, India, Puerto Rico, Chile, Honduras, Columbia, and South Africa.

Regulatory Collaborations

Eurofins maintains longstanding and successful relationships with the following regulators:

Guam EPA - Mr. Angel Marquez, Ms. Carmencita Cortez, Mr. Jesse Cruz
U.S. EPA Region 9 – Ms. Anna Yen, Mr. Kevin Ryan, Mr. Bruce Macler, Mr. Tomas Torres
EPA/SIDWIS Implementation - Ms. Julie Mendoza

Client References

U.S. Navy Guam (2000-Present)

In 2000, U.S. Navy Guam contractor Raytheon selected Eurofins to assist with the completion of new EPA Phase 2/5 drinking water regulations. We have continued to serve and support Navy Guam throughout the years despite the changeover of water operations from Raytheon to Earth Tech to DZSP. We have assisted with routine drinking water, wastewater, UIC, landfill monitoring and new well development @Anderson AFB as well as lab methods development assistance for the Navy's own water quality laboratory.
Mr. Stacy Demaclid (671-349-9157 or stacy.demaclid.ctr@fe.navy.mil)

Commonwealth of the Northern Marianas islands (2000-Present)

Eurofins has been supporting CNMI DEQ's Private Water System testing program since its inception more than ten years ago. As the lead contractor for the program, Eurofins works closely with BECQ to identify each system's sample schedule, coordinate sample collection with our local partner, Quality Water, receive and process collected samples within the prescribed analytical holding times and report compliance data back to the system owner. A majority of the system owners are private foreign companies with little or no knowledge of the DEQ compliance and reporting process. Our "hands on" assistance to these system owners and willingness to maintain our analytical price points without change for more than ten years reflects our unique relationship with BCEQ and commitment to the fiscal stability and success of the local economy. In many instances, proactively identifying high levels of naturally occurring Arsenic, Gross Alpha and Nitrate in wells tested as well as excessive amounts of THMs or corrosion by-products in treated or distribution system samples so that our system owner customer can take action with BCEQ to protect public health and welfare for residents and visitors in the CNMI.
Mr. Joe Kaipat (670-664-8509 or josekaipat@becq.gov.mp)

American Samoa Power Authority (2003-Present)

In 2003, American Samoa EPA (ASEPA) relinquished management of American Samoa Power Authority's (ASPA's) safe drinking water compliance monitoring requirements, compelling ASPA to establish contracted laboratory services for the first time. Eurofins worked closed with Mr. Martin Fruean to develop a plan to bring ASPA into compliance with EPA regulations. Over the years, we have continued to support ASPA with testing and assistance in securing monitoring waivers to eliminate unnecessary testing and associated costs.
Ms. Danielle Mauga (684-699-1333 or danielle@aspower.com)

QUALIFICATIONS

Certifications

Eurofins has been audited and accredited by EPA in support of special regulatory programs (ICR, UCMR and LT2) in each of the last 17 plus years. We strive to educate ourselves and obtain as much knowledge as our clients. We collaborate with EPA on analytical methods, detection limit feasibility relative to proposed regulatory thresholds, best practices and acceptable precision & accuracy. This firsthand collaboration and interaction directly with regulators helps us know the priority for future regulations and our testing capabilities reflect that. Eurofins is accredited by four primary organizations:

- Eurofins has held **GEPA accreditation** (#15-003r) since the commencement of the program more than 10 years ago. Our field of testing approval includes 100% of the regulated water testing requirements in the microbiology, inorganics, trace elements, volatile organics, semi-volatile organics and radiochemistry categories.
- Eurofins is also a **TNI-accredited** laboratory, hence our involvement and assistance to ELTAC and ELAP with integrating the 2012 TNI standards into the new State accreditation program. Of course, Eurofins already meets these anticipated new State standards. More than 90% of California laboratories do not qualify for TNI accreditation at the present time.
- Eurofins is **ISO-accredited** as well, according to the latest ISO quality standard (17025). As an ISO laboratory, Eurofins has established and maintains standard operating procedures for ethics, data integrity, health & safety, staff training & management, facilities integrity and the like. Less than 5% of California laboratories are ISO-accredited.
- Finally, Eurofins is **EPA-approved** to perform testing both the Unregulated Contaminants Monitoring Rule (UCMR) 1, 2, 3 and 4 and the Long-Term 2 (LT2) Enhanced Water Treatment Rule. Both of these accreditations require extensive and ongoing documentation of instrumentation, staff qualifications & experience and quality-specific project plans to support both regulatory program. Eurofins is presently EPA-approved for all UCMR4 methods and all LT2 methods. No other laboratory can claim such certification status and coverage.

Our extensive list of Federal and State accreditations reflects our commitment to quality, above and beyond the minimum requirements. Theses extensive accreditations and approvals also subject Eurofins to frequent on-site audits, blind proficiency testing and quality documentation through the year, in contrast to most laboratories that are audited or evaluated by the same regulatory agency every two or three years. On external **Proficiency Test (PT) studies**, Eurofins has scored more than 99% correct on EPA Water Supply PTs for over 15 years running. In addition to 3rd party PTs, we also use an internal blind performance evaluation sample program to monitor problems and to verify proficiency of all analysts.

Copies of our certifications are included with this bid submission for your review.

Testing Capability and Resources

Eurofins is a $1 billion environmental services corporation. The firm employs more than 2,000 professionals in 100+ locations worldwide, including offices in Hawaii, Australia and Asia. Our California laboratory is a full service facility with more than 30,000 square feet of space and over 100 full time scientists & technical professionals. We have been ranking as one of the top 20 commercial laboratories nationwide for the last 10 years. The financial backing and support of our parent company affords us the capitol necessary to purchase and maintain modern, reliable, productive instrumentation and employ professional, experienced chemists & microbiologists. We employ two analysts and more than four instruments for every major analytical method we offer. This unprecedented analytical resource affords us the capability of processing large sample batch sizes or providing rapid analysis turnaround times for special projects without the need for subcontracting or major disruption to our operation.

Eurofins has among the largest sample capacity (for water analysis) of any single location commercial lab in the United States, in excess of 10,000 samples per month or over 40,000 tests per month. Eurofins' $2,000,000 laboratory information management system (LIMS) provides improvements to all aspects of data management, sample tracking, QC and reporting.

Instrumentation and Capacity

Eurofins self-performs 100% of your compliance testing without subcontracting. Our extensive analytical capacity is more than sufficient to support GWA's sample orders.

Testing Category	Analysts	Instruments	Monthly Sample Capacity
Bacteriology	4	4	10,000 samples
Asbestos	2	1	400 samples
General Chemistry	8	8	1,000 samples
Nutrients	4	4	1,000 samples
Metals	6	7	1,500 samples
Perchlorate	2	3	800 samples
Radiochemistry	3	6	320 samples
TOC/TOX/UV	2	3	800 samples
Disinfection By-Products	8	8	2,000 samples
Volatile Organics	4	8	2,000 samples
Synthetic Organics	8	8	1,500 samples
Nitrosamines	2	2	600 samples
Emerging Contaminants	7	4	100 samples
Semi-volatiles	4	7	1,500 samples

Quality Assurance

Eurofins maintains a Quality Assurance Program (QAP) based on the principals of accuracy, precision and timeliness. Our program is modeled after the EPA Lab Certification Manual for Drinking Water Laboratories, which follows a logical work sequence and employs a number of criteria to reflect our commitment to generating high quality, legally & scientifically defensible analytical data in user-friendly formats. Eurofins updates the QAP annual to reflect our current operation.

Components of the QAP include:

- Formalized, validated analytical and operational standard operating procedures.
- Ongoing checks to ensure the use of current and acceptance standards.
- Strict adherence to chain of custody procedures and sample documentation.
- Annual demonstrations of capability and method detection limits for all compliance tests.
- Reporting levels established at/above the lowest calibration standard and above the MDL
- Multiple data reviews at the peer, supervisor, validator and project management levels.
- Data storage, retrieval and control charts to predict instrument maintenance schedules
- Use of lab controls, matrix spikes and blanks to identify false positive results
- Identification of results inconsistent with sample history or exceeding regulatory thresholds
- Establishment of alternative resources for subcontracted and contingency analyses

To support our QA policies, Eurofins Labs has also established a comprehensive Ethics and Data Integrity Program. The program contains all of the features outlined in the 2012 TNI Standards.

Facility Audits & Proficiency

Because of our participation and support for high-profile projects & water system customers and commitment to quality above and beyond the minimum requirements, Eurofins is routinely audited and inspected by any one of a number of Federal or State regulators and industrial representatives. In contrast, most laboratories are audited by the same regulatory agency every two or three years. Eurofins also participates in a number of 3rd party PT programs for both regulated constituents and emerging contaminants. We have scored more than 99% correct on EPA Water Supply PTs for 10 years running. In addition to 3rd party PTs, we also use an internal blind performance evaluation sample program to monitor problems and to verify proficiency of all analysts. Eurofins has also served as a referee laboratory for commercial producers of external reference samples as well as for the EPA in the verification of their test methods.

STAFFING

Eurofins employs **over 120 professionals** dedicated to providing our clients with exceptional water quality testing services and expertise. We offer the largest and most experienced analytical resource in the United States. The **combined expertise** of our GWA-designated project team exceeds **230 years**, including an average of 34 years industry experience and almost 20 years working at Eurofins. This incredible resource of knowledge and experience is unprecedented in the laboratory industry.

Key Eurofins Staff assigned to support GWA:

Staff Member	Role	Degree	Year Experience	Years w/Eurofins
Rick Zimmer	Senior Account Manager	BA/MBA	25	25
Jeff Lee	Analytical Service Manager	BA	11	2
Bosco Ramirez	President/Lab Director	BS/MS	32	1
Andrew Eaton	Vice President/Technical Director	PhD/BS	41	37
Linda Geddes	Client Services Manager	BA	46	20
Walter Hsieh	Operations Manager	BS	31	17
Nilda Cox	Quality Assurance Manager	BS	40	21

Mr. Rick Zimmer, Senior Account Manager – Mr. Zimmer holds a Bachelor's degree from San Diego State University and Master's degree from Long Beach State University. He has 25 years industry experience as an Account Manager and Project Manager. Mr. Zimmer is a member of the American Water Works Association, WateReuse Association, Groundwater Resources Association and the Association of California Water Agencies. He has a thorough understanding of your monitoring and reporting requirements, are aware of pending EPA and GEPA regulations and successfully overseen compliance projects for all of our pacific islands customers.

Mr. Jeff Lee, Analytical Services Manager – Mr. Lee holds an Bachelor's degree and has 11 years industry experience as an Analytical Services Manager. Mr. Lee provides direct management of your project, include kit fulfillment, incoming sample logistics coordination, tracking work in progress and final review/sign-off of reports and invoices.

Mr. Bosco Ramirez, President & Lab Director - Mr. Ramirez has a Bachelor's degree in Chemistry from San Jose State University and has a Master's Degree in Analytical Chemistry from Governors State University. He has more than 30 years' experience in the analysis of water, wastewater, soil and food. As President, his ultimate responsibility is ensuring the operational efficiency and accuracy of laboratory procedures, cost analysis, overhead control, marketing, and project management across all lab facilities.

Dr. Andrew Eaton, Vice President & Technical Director – Dr. Eaton holds a Bachelor's degree in Earth Sciences from Antioch College, a Master's degree in Geology from Harvard University and a PhD in Geochemistry from Harvard University. He has over 40 years industry experience as a Technical Director, Project Manager, Laboratory Supervisor (Inorganics) and Researcher. Dr. Eaton is a member of the American Chemistry Society, Geochemical Society, American Water Works Association, International Bottled Water Association, International Society of Beverage Technologists, and the NELAC Institute (TNI). Dr. Eaton has also served as an industry expert representative for the U.S. EPA (MDCB FACA) workgroup, EPA BOSC Drinking Water Workgroup, AWWA representative on the Standard Methods Joint Editorial Board) and the State of California (ELTAC). He is on the Peer Review Editorial Board for the Journal of the American Water Works Association.

Ms. Linda Geddes, Client Services Manager – Ms. Geddes holds a BA in Chemistry from Humboldt State University and has over 30 years of experience as a Chemist, QA Officer and Project Manager. She has been a member of Eurofins since 1998. Ms. Geddes is responsible for ensuring that the service needs of our clients are met through the supervision of our project management staff and analytical staff. She serves as vice-chair of the AWWA Lab Practices committee.

Mr. Walter Hsieh, Operations Manager - Mr. Hsieh holds a BS in Chemistry from Loma Linda University and has over 27 years' experience in environmental testing. He has been with Eurofins for the past 13 years as Bench Chemist, Laboratory Supervisor and Operations Manager. In his present role, Mr. Hsieh coordinates and prioritizes the activities for the analytical operation, including instrument maintenance & upgrade, workload forecasting and staff scheduling.

Ms. Nilda Cox, Laboratory QA Officer – Ms. Cox holds a BS in Chemistry from the University Of Santo Tomas Philippines. She has over 30 years of analytical experience, including 15 years as the QA Manager at Eurofins. Ms. Cox helps ensure our adherence to Eurofins' Quality Assurance Plan and EPA/GEPA regulatory requirements. Ms. Cox currently serves on the Onsite Assessment Committee for TNI and is routinely involved with municipal & state agencies, assisting with analytical methods development and laboratory accreditation.

SERVICES

Customized Sample Kits

GWA manages 2 separate water systems, over 100 compliance entry points and several distribution system locations requiring sample collection each week. With such an extensive system and limited sampling staff, Eurofins has developed customized sample kits to minimize field time and eliminate unnecessary data transcription or recording while in the field. Containers are pre-preserved and labeled with the site name or GEPA site ID. Containers are grouped in coolers based on the system (Northern, Central) and sample location. Each cooler include ice packs, custody form, kit inventory, packaging material and a pre-paid return shipping label. Separate coolers will be provided for annual Toxicity testing so that these samples may be shipped directly from Guam to the Toxicity laboratory for processing within the 3 days holding time for this test.

Kit Deliveries

Eurofins works off of GWA's annual sample schedule and checks in monthly to confirm work assignments for the following month. We then then proceed with packing each cooler with the containers required. Quarterly DBP and SOC kits are delivered by the first of the month in which the samples are scheduled for collection. Monthly NPDES kits are delivered within 5 working days prior to the 1st of each month. To ensure GWA staff have sufficient resources available for rapid response to operational concerns or customer requests, Eurofins provides a stock of containers for frequently required tests (Nitrate, Lead/Copper, Pesticide, Full Suite) plus coolers and ice packs.

Delivery Notifications and Login

Each time Eurofins ships out a sample kit, we enter the Federal Express tracking number for the shipment. This entry will prompt our system to automatically e-mail GWA with a notice of incoming shipment that includes links to the sample kit inventory and freight tracking information on the FedEx website. By receiving such information, GWA is able to schedule staff in advance to maximize the limited time they are afforded to collect samples.

Similarly, Eurofins requests return notification from GWA of all incoming sample shipments so that we too may track your samples and ensure that all holding times are adhered to resampling required due to a missed holding time is avoided. Upon receipt, each cooler is inspected immediately upon receipt. We contact GWA whenever samples are received with breakage, leakage, inverted septa or air bubbles (for Volatile samples), incorrect containers, wrong preservatives, missing container labels, incomplete paperwork or excessive temperature. Each

cooler temperature is measured and recorded on the sample custody form. Tracking numbers are then assigned to each sample and scheduled for analysis. Analytical departments are notified to retrieve any samples with short holding times or samples requiring rush turnaround times so processing can commence immediately. Remaining samples are stored at 4 degrees C in walk-in refrigerators. Temperatures in all cold storage areas are measured twice each day to ensure required temperature is maintained (TNI 5.5.3). Volatiles samples are segregated in separate refrigerators to prevent cross-contamination. A final Acknowledgement of sample receipt is subsequently e-mailed to GWA for reference.

Analytical Methods

The analytical methods performed at Eurofins are based primarily on U.S. Environmental Protection Agency and *Standard Methods for the Examination of Water and Wastewater*, approved regulatory editions. Non-standard methods for unregulated constituents like UCMR or other emerging contaminants are properly validated (TNI 5.5.4.5.2) and based on the EPA Laboratory Approval Requirements & Information Document and official UCMR Laboratory Guidance Document. Method validation includes an initial demonstration of capability (IDC), a method detection limit (MDL) study and limit of quantitation (LOQ) study. Once method validation is approved, method Standard Operating Procedures (SOPs) are finalized and updated annually. These detailed SOPs meet the requirements included in the mandated test method or regulation, even if the requirements are more stringent than the corresponding TNI standard.

Eurofins also applies the same conservative standard in establishing detection limits. We set the minimum reporting levels (MRLs), which are the reporting levels on reports, at or above the lowest standard associated with that analytical run. To verify the sensitivity and precision of the MRL, we analyze an MRL Check with every analytical run. This approach ensures that all data reported as "detected" will have a high degree of analytical precision.

Advance Notice of Preliminary Results

Every morning, Mr. Lee receives an e-mail from the Eurofins Laboratory Information Management System (LIMS) summarizing project hits from sample results entered the prior day. This daily notice prompts us to:

- Resubmit sample for reanalysis to confirm suspect hits
- Inform GWA of any unusual results exceeding the MCL or discharge thresholds.
- Advise GWA of the need for a data qualifier or sample recollect

Our goal is to assume ownership of your requirements, unique sample types and project history, so we will know when values are inconsistent with historical values, when results might be due to matrix interference or when certain detections are expected. Ultimately, we will always communicate with GWA and keep her aware of issues as they arise and resolve any concerns before data is submitted to GEPA or EPA Region 9.

Collaboration with Regulators

When results are identified which have regulatory implications, Eurofins is prepared to work with EPA and/or GEPA to collaborate and address any technical concerns to ensure fair, complete and correct compliance reporting. On several occasions, GWA samples were received or processed after the holding times stipulated by the method. However, because of our excellent relationship with GEPA and detailed report comments/explanations, data generated by Eurofins is never challenged and always acceptable for compliance reporting.

Similarly with EPA, Eurofins routinely meets with Region 9 staff to collaborate on GWUI and UCMR implementation strategies. For the first 3 UCMR monitoring events, Eurofins actively worked with Region 9 on behalf of GWA to develop a sample plan which employed representative sampling strategies and staggered sampling schedules to minimize unnecessary analytical cost and spread out the monitoring budget over several budget cycles.

Assistance with Budgeting and Planning

In collaboration with EPA and GEPA staff, Eurofins helped develop the very first GWA monitoring budget in 2001. Because Eurofins works frequently with EPA as a stakeholder and contractor, we're "in the know" concerning future regulations and their impact on our clients. In one recent example, we brought to GEPA's attention their need to implement the 2004 Radionuclides Rule update to the original Rule. The resulting baseline monitoring requirement for Radium 228 is now implemented at Guam water system entry points starting in 2012.

During our annual trip to visit Guam, we always set-aside time to review the coming year's monitoring requirements and provide suggestions and assistance with developing an accurate and comprehensive monitoring budget based on current and future regulations. These consulting services are afforded to GWA without charge and are considered part of our package of professional testing service.

Reporting of Results

Eurofins carefully reviews, approves and submits comprehensive analytical reports in PDF and (to eliminate your data transcription into Excel) CSV formats. Final deliverables will continue to delivered within 5 working days of analysis completion and include all of the following:

- Signed Cover Page with Project Name and Title referenced
- Sample Acknowledgement
- Chain of Custody
- Hits Report Summary with comparison to EPA regulatory limits
- Sample Results with collection, receipt and analysis dates referenced
- Report Comments
- QC Summary
- QC Data (lab spikes, matrix spikes, MRL check, method blank, surrogates)

Eurofins notes any data not meeting the limits for any of the above parameters to highlight for the benefit of GWA and GEPA any instances of exceptions to quality control. In all cases Mr. Lee provides detailed explanation of all data qualifiers or prior report/sample references and confirms if test results are acceptable for compliance or will require resampling.

To ensure compliance with the UCMR4, Eurofins submits data to EPA's CDX database. For UCMR4, critical field and operation parameters will need to be uploaded by the laboratory with analytical data. Eurofins provides UCMR-specific custody forms to provide a user-friendly means for capturing and transferring this data into the CDX by the laboratory. With this approach, UCMR notices of non-compliance are avoided due to incomplete reporting.

Document Delivery and Archival

Eurofins maintains a secure, online Client Access Portal (CAP) account for GWA's access all project-related documents. Any designated representative may use project-specific or "master" ID and password to access our web site where PDF versions of the project documents can be accessed. All report documents are delivered electronically via PDF e-mail link within 20 working days of our sample receipt. Any one of a number of GWA or 3rd party staff may be designated to receive kit order inventories, custody forms, sample receipt acknowledgements, reports and/or invoices for specific projects. The CAP organizes GWA data by project (Entry Point, DBP, LCR, UCMR, Wastewater, etc.). This allows the option for project-specific reporting & billing and also facilitates data mining for project-specific analyze histories or regulatory reports.

Data Mining

The CAP also provides real time data queries by project, sample location, analytical parameter and/or data range. This feature is useful for summary data reporting (i.e. CCR) and source/system trending. Project status can also be tracked in real time to determine the progress of logins, analysis and reporting. Because Eurofins has served as GWA's contract laboratory for more than 15 years, our CAP contains data histories dating back to 2000 and can be configured to include data as far back as 2000 when we originally started assisting GWA.

GWA may utilize the Eurofins CAP as its own electronic file cabinet of data. The CAP access and features are afforded to GWA free of charge. However, if GWA desires to establish its own database (i.e. LIMS), Eurofins will work closely with GWA and/or its designated representative(s) to ensure that Eurofins data transfers are submitted and correctly uploaded. We're also willing to invest our time (additional fees may apply) to assist GWA develop a strategy and implement its own water quality database if it so wishes.

SIDWIS-State for GEPA

Eurofins is also standing by ready to generate EDTs compatible with GEPA SIDWIS database. We presently generate SIDWIS-compatible EDDs for CNMI BECQ and Hawaii DOH.

Invoicing and Payment Terms

Invoices for each order are submitted electronically (via PDF) with the final report and include the following essential data elements:

- Project and Sample Group reference
- Sample Identification
- Test(s) Completed
- Unit and Extended Cost
- Total Cost
- Contract or Purchase Order reference

Because we understand the cash flow priorities of GWA, we afford a minimum of 60 days (from date of invoice issuance) for payment. However, situations do arise and Eurofins continues to extend GWA sufficient time needed to make prompt payments as long as good faith is displayed in addressing any past due amounts.

eurofins | Eaton Analytical



Appendix A: Fee Schedule and Bid Bond

GUAM WATERWORKS AUTHORITY
Suite 200, Gloria B. Nelson Public Service Building
688 Route 15, Mangilao GU 96913-6203

Guam Waterworks Authority
Invitation for Bid Number: GWA 2018-33
For Laboratory Services Re-Bid

ALL OR NONE BID

I. BID ITEMS (*)

(1) WATER SAMPLES(*)

(A) MONTHLY TEST: (12 X / year)

Item No	Description	Est. QTY	Cost Per Test	Monthly Total
1.0	Volatile Organic Chemicals (VOC)	7	$150.00	$1,050.00
1.1	Nitrates	25	$15.00	$375.00
1.2	Total Organic Carbon (TOC)	4	$50.00	$200.00
			Total Monthly Cost:	$1,625.00
			Total Annual Cost:	$19,500.00

(B) QUARTERLY TEST: (4 X / year)

Item No	Description	Est. QTY	Cost Per Test	Quarterly Total
2.0	Pesticides	75	$150.00	$11,250.00
2.1	Volatile Organic Chemicals (VOC)	15	$150.00	$2,250.00
2.2	EDB and DBCP	1	$50.00	$50.00

2.3	Organic Chemicals EPA 515.4, EPA 531.2, EPA 547, EPA 548, EPA 549, EPA 1613, EPA 525.2	30	$1,165.00	$34,950.00
2.4	Inorganic Chemicals Sb, As, Ba, Be, Cd, Cr, Ni, Se, Tl, CN^-, Hg, F, NO_2^-, NO_3^-, $SO_4^=$ and Na	30	$230.00	$6,900.00
2.5	Inorganic Chemicals Gross Alpha Gross Beta, Uranium, RA 226, and RA 228)	12	$450.00	$5,400.00
2.6	Nitrates	1	$15.00	$15.00
2.7	Trihalomethanes	12	$70.00	$840.00
2.8	Haloacetic Acids	12	$150.00	$1,800.00
		Quarterly Total Cost:		$63,455.00
		Total Annual Cost:		$253,820.00

(C) SEMIANNUAL TEST: (2 X / year)

Item No	Description	Est. QTY	Cost Per Test	Total
3.0	Inorganic Chemicals (IC): Sb, As, Ba, Be, Cd, Cr, Ni, Se, Tl, CN^-, Hg, F, NO_2^-, NO_3^-, $SO_4^=$, and Na	75	$230.00	$17,250.00
			Total Semi-annual Cost:	$17,250.00
			Total Annual Cost:	$34,500.00

(D) ANNUAL TESTS:

Item No	Description	Est. QTY	Cost Per Test	Total
4.0	Volatile Organic Chemicals (VOC)	124	$150.00	$18,600.00
4.1	Nitrates	60	$15.00	$900.00
4.2	Inorganic Chemicals: (IC) Sb, As, Ba, Be, Cd, Cr, Ni, Se, Tl, CN^-, Hg, F, NO_2^-, NO_3^-, $SO_4^=$ and Na.	4	$230.00	$920.00

Total Annual Cost: $20,420.00

(E) LEAD AND COPPER RULE (2 X per site every three years = 176 during this contract)

Item No	Description	Est. QTY	Cost Per Test	Sample Set Total
5.0	Lead and Copper	44 sites	$30.00	$1,320.00
			Total Cost Under this Contract:	$232,320.00
			(1/5 X Total cost for annualized allocation for price comparison)	$46,464.00)

UCMR4 SAMPLES(*)

(F) TWO (2) ROUNDS 6 MONTHS APART:
(Expected to start in 2019 and can extend through 2024)

Item No	Description	Est. QTY	Cost Per Test	Total
6.0	***(per round)*** - **USEPA List 1,** Assessment Monitoring (including HAA9, TOC and Bromide.)	- 74	$1,300.00	$96,200.00
			Total UCMR4 Cost:	$96,200.00
			(1/5 X Total cost for annualized allocation for price comparison)	$19,240.00

TOTAL DRINKING WATER ANNUALIZED COST $393,944.00

(2) WASTEWATER SAMPLES (*)

(A) QUARTERLY TEST: (4 X / year)

I Item No	Description	Est. QTY	Cost Per Test	Quarterly Total
7.0	Metals (Cu, Ni, Zn, Al) (Agat WWTP only)	1	$60.00	$60.00
			Total Annual Cost:	$240.00

(B) ANNUAL TEST:

Item No	Description	Est. QTY	Cost Per Test	Total
8.0	Whole Effluent Toxicity; (purple Sea Urchin Bioassay) *[NDWWTP, HWWTP & AWWTP only]*	3	$1,500.00	$4,500.00
8.1	Heavy Metals (As, Cd, Cr^{3+}, Cr^{6+}, Cu, Hg, Pb Ni, Ag, and Zn) *[all 4 WWTPs]*	4	$180.00	$720.00
8.2	Chlordane and Dieldrin *[Agat WWTP only]*	1	$150.00	$150.00
8.3	All Pesticides (organochlorines, carbamates, herbicides, fungicides, defoliants, and botanicals) ***[see Guam Water Quality Standards-2001 Located in Appendix A]*** *[all 4 WWTPs]*	4	$1,125.00	$4,500.00
8.4	TOC Calibration Reference Test (**Ugum only**. Not a regularly scheduled test. Unit price only in case it is called for). ***[Do not include in Total Cost]***		$50.00	
			Total Annual Test Cost:	$9,870.00

(C) NPDES PERMIT PERIOD TESTS:

Item No	Description	Est. QTY	Cost Per Test	Total
9.0	Whole Effluent Toxicity Umatac-Merizo WWTP (Fresh water) ***[one time in 2019]***	1	$2,800.00	$2,800.00
9.1	Priority Pollutant Scan ***(a)*** ***(a) once per NPDES permit cycle = one for each WWTP during the Period of this contract.*** *[Appendix F, all GWA WWTP NPDES Permits]*	4	$1,2750.00	$5,100.00
	Total for 5-year contract period			$7,900.00
	(1/5 of the total for annualized cost comparison)			$1,580.00
TOTAL WASTEWATER ANNUALIZED COST				$11,690.00
	GRAND TOTAL ANNUALIZED COST			$405,634.00

(*) The quantities listed in this bid are based on current information which are specified for evaluation and budgeting purposes. The quantities may change during the period of the contract once awarded. Offerors should consider this as an *Indefinite Quantity, Indefinite Delivery* bid for contract award when preparing the offers.

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

CERTIFICATE OF AUTHORITY

RENEWAL 239

Know All Men By These Presents That:

Name **FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

Address 1400 AMERICAN LANE
SCHAUMBURG IL 60196 1056

Classes of Insurance Authorized

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

Having complied with the Insurance Law of Guam, is hereby authorized to transact as an insurer, the above named Classes of Insurance in Guam from the 01 ***day of*** July , ***20*** 18 , ***to the*** 01 ***day of*** July , ***20*** 19 , ***unless authority is revoked for failure to comply with the law.***

General Agent(s):

TAKAGI & ASSOCIATES INC
CASSIDY'S ASSOCIATED INSURERS INC

In Witness Whereof, I have hereunto subscribed my name officially and have hereon impressed my Seal of Office at the City of Hagatña, Guam on this 23 ***day of*** May ***A.D. 20*** 18.

John P. Camacho

JOHN P. CAMACHO
Acting Banking and Insurance Commissioner

BID AND PERFORMANCE BOND FOR GOODS AND SERVICES AS REQUIRED UNDER 5 G.C.A. § 5212

KNOW ALL MEN BY THESE PRESENTS, that
Eurofins Eaton Analytical, LLC
(Name of Contractor)
as Principal, herein after called the Principal and
Fidelity and Deposit Company of Maryland
(Name of Surety)
as duly admitted insurer under the laws of the Territory of Guam, as Surety, hereafter called the Surety, are held and firmly bound unto the Guam Waterworks Authority for the sum of **---Fifteen Percent of the Total Bid Price---** Dollars ($**---15%---**), for payment of which sum will and truly to be made, the said Principal and the said Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents:

WHEREAS, the Principal has submitted a bid for and is anticipated to enter into a contract in the amount specified below,
Laboratory Services IFB No. 2018-33

NOW, THEREFORE, if the Guam Waterworks Authority shall accept the bid and the Principal shall not withdraw said bid within (120) calendar days after the opening of bids, and shall within twenty one (21) calendar days after the prescribed forms are presented to him for signature, enter into a Contract with the Guam Waterworks Authority in accordance with the terms of such bid. This bond shall also be held by the Guam Waterworks Authority to secure the faithful performance of such Contract and for the prompt payment of labor, goods, services and materials furnished in the prosecution thereof. In the event of the failure of the Principal to enter into such Contract, or if the Principals (Contractor) fails to perform in accordance with the requirements set out under the Bid or any other written instrument requirement performance thereunder, the Surety, on behalf of the Principals shall pay to the Guam Waterworks Authority the differences not to exceed the penalty hereof between the amounts specified in said bid and such larger amount for which the Guam Waterworks Authority may in good faith contract with another party to perform work covered by said bid or an appropriate liquidated amount as specified in the Invitation for Bids then this obligation shall be null and void, otherwise to remain in full force and effect.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION is such that, if the contractor shall promptly and faithfully perform said Contract, and shall promptly make payment to all claimants as hereinafter defined for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

A. The Surety hereby waives notice of any alteration or extension of the time made by the Authority provided the same is within the scope of the Contract or any modification thereto.

B. Whenever the contractor shall be and is declared in default by the Authority to be in default under the Contract, the Authority having performed its obligations hereunder, the Surety may promptly remedy the default or shall promptly:

1. Complete the Contract in accordance with its terms and conditions; or

2. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by the Authority and the Surety of the lowest responsible bidder, arrange for a Contract between such bidder and the Authority, and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts or completion arranged under this paragraph) sufficient funds to pay the cost of completion, less than balance of the Contract price, but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract Price," as used in this paragraph shall mean the total amount payable by the Authority to Contractor under the Contract and any amendments thereto, less the amount properly paid by the Authority to Contractor. No right of action shall accrue on this bond to or for use of any person or corporation other than the Authority or successors of the Authority.

C. A claimant is defined as one having a direct contract with the Contractor or with a subcontractor of the Contractor for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.

D. The above named Contractor and Surety hereby jointly and severally agree with the Authority that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date of which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for use of such claimant, prosecute the suit to final judgment to final judgment for such sum or sums as may be justly due the claimant, and have execution thereon. The Authority shall not be liable for the payment of any costs or expenses of any such suit.

E. No suit or action shall be commenced hereunder by any claimant:

1. Unless claimant, other than one having a direct contract with the contractor, shall have given written notice to any two (2) of the following entities named below:

(a) the Contractor; (b) the Guam Waterworks Authority, or (c) the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be personally served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Contractor at any place the principal maintains an office or conducts its business.

2. After the expiration of one (1) year following the date on which the last of the labor was performed or material was supplied by the party bringing suit.

3. Other than in a court of competent jurisdiction in and for the Territory of Guam.

F. The amount of the bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.

SIGNED AND SEALED THIS 1st day of October, 2018, A.D.

IN THE PRESENCE OF:
(Note: If the Principals are Partners, each must execute the Bond)

(WITNESS)

(TITLE)

(MAJOR OFFICER OF SURETY)

Dione R. Young, Attorney-in-Fact
TITLE)

Eurofins Eaton Analytical, LLC
(CONTRACTOR) (SEAL)

(TITLE) President

Fidelity and Deposit Company of Maryland

(MAJOR OFFICER OF SURETY)

Anne Crowner, Attorney-in-Fact
(TITLE)

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

(RESIDENT GENERAL AGENT)

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

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Maryland, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Maryland (herein collectively called the "Companies"), by **THOMAS A. LITTLEFIELD, Vice President,** in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Craig E. HANSEN, Jay D. FREIERMUTH, Brian M. DEIMERLY, Anne CROWNER, Mark R. DEWITT, Stacy VENN, Cindy BENNETT, Jacqueline KIRK, Ginger HOKE and Dione R. YOUNG, all of West Des Moines, Iowa, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **, each in a penalty not to exceed the sum of ONE MILLION DOLLARS ($1,000,000)** and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

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

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said **ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND,** this 5th day of August, A.D. 2016.

ATTEST:

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

By: _____

Secretary
Eric D. Barnes

_____

Vice President
Thomas A. Littlefield

State of Maryland
County of Baltimore

On this 5th day of August, A.D. 2016, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **THOMAS A. LITTLEFIELD, Vice President, and ERIC D. BARNES, Secretary,** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, deposeth and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

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

_____
Maria D. Adamski, Notary Public
My Commission Expires: July 8, 2019

POA-F 088-6828A

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify of revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 1st day of October, 2018.

Michael Bond, Vice President

EXHIBIT B

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

MEMORANDUM

TO: General Manager

VIA: Supply Management Administrator

FROM: Evaluation Committee Members

SUBJECT: Invitation to Bid No. GWA 2018-33
Ref: Laboratory Services Re-bid

REF: Recommendation of Award

DATE: **October 18, 2018**

Invitation for Bid No: GWA 2018-33 officially announced and advertised on September 10, 2018 and posted in the Pacific Daily News, Guam Daily Post, and Guam Waterworks Authority Website. Schedule bid opening date is on October 09, 2018 @ 10:00 am. GWA received nine (09) of interest by acknowledgment thru GWA's website.

Bidders Register:

1. ARS Aleut Analytical
2. TH Wilson Bonds
3. Shay Enterprise
4. 9
5. Light Source
6. M.D Wholesale
7. Bid
8. Schneider Laboratories Global
9. Eurofins Eaton Analytical

Of the Nine (09) one (1) submitted a proposal, namely:

- Eurofins Eaton Analytical

An evaluation committee was formally assembled and met on October 12, 2018 @ 10:00 am, based on the outcome, the committee member determined, Eurofins Eaton Analytical bid proposal is deemed responsive and have complied with all terms & conditions and bid requirements specified in the IFB. Therefore, the committee recommend to move forward with the award for the following Item No's.

ALL OR NONE BID

Indefinite Quantity Bid

I. BID ITEMS (*)

(1) WATER SAMPLES(*)

(A) MONTHLY TEST: (12 X / year)

Item No	Description	Est. QTY	Cost Per Test	Monthly Total
1.0	Volatile Organic Chemicals (VOC)	7	$150.00	$1,050.00
1.1	Nitrates	25	$15.00	$375.00
1.2	Total Organic Carbon (TOC)	4	$50.00	$200.00
			Total Monthly Cost:	$1,625.00
			Total Annual Cost:	***$19,500.00***

(B) QUARTERLY TEST: (4 X / year)

Item No	Description	Est. QTY	Cost Per Test	Quarterly Total
2.0	Pesticides	75	$150.00	$11,250.00
2.1	Volatile Organic Chemicals (VOC)	15	$150.00	$2,250.00
2.2	EDB and DBCP	1	$50.00	$50.00
2.3	Organic Chemicals EPA 515.4, EPA 531.2, EPA 547, EPA 548, EPA 549, EPA 1613, EPA 525.2	30	$1,165.00	$34,950.00
2.4	Inorganic Chemicals Sb, As, Ba, Be, Cd, Cr, Ni, Se, Tl, CN^-, Hg, F, NO_2^-, NO_3^-,	30	$230.00	$6,900.00

	$SO_4^=$ and Na			
2.5	Inorganic Chemicals Gross Alpha Gross Beta, Uranium, RA 226, and RA 228)	12	$450.00	$5,400.00
2.6	Nitrates	1	$15.00	$15.00
2.7	Trihalomethanes	12	$70.00	$840.00
2.8	Haloacetic Acids	12	$150.00	$1,800.00
			Quarterly Total Cost:	$63,455.00
			Total Annual Cost:	***$253,820.00***

(C) SEMIANNUAL TEST: (2 X / year)

Item No	Description	Est. QTY	Cost Per Test	Total
3.0	Inorganic Chemicals (IC): Sb, As, Ba, Be, Cd, Cr, Ni, Se, Tl, CN^-, Hg, F, NO_2^-, NO_3^-, $SO_4^=$, and Na	75	$230.00	$17,250.00
			Total Semi-annual Cost:	$17,250.00
			Total Annual Cost:	**$34,500.00**

(D) ANNUAL TESTS:

Item No	Description	Est. QTY	Cost Per Test	Total
4.0	Volatile Organic Chemicals (VOC)	124	$150.00	$18,600.00
4.1	Nitrates	60	$15.00	$900.00
4.2	Inorganic Chemicals: (IC) Sb, As, Ba, Be, Cd, Cr, Ni, Se, Tl, CN^-, Hg, F, NO_2^-, NO_3^-, $SO_4^=$ and Na.	4	$230.00	$920.00
			Total Annual Cost:	***$20,420.00***

(E) LEAD AND COPPER RULE (2 X per site every three years = 176 during this contract)

Item No	Description	Est. QTY	Cost Per Test	Sample Set Total
5.0	Lead and Copper	44 sites	$30.00	$1,320.00

Total Cost Under this Contract: $232,320.00

(1/5 X Total cost for annualized allocation for price comparison) ***$46,464.00***

UCMR4 SAMPLES(*)

(F) TWO (2) ROUNDS 6 MONTHS APART:
(Expected to start in 2019 and can extend through 2024)

Item No	Description	Est. QTY	Cost Per Test	Total
6.0	***(per round)*** **-** **USEPA List 1,** Assessment Monitoring (including HAA9, TOC and Bromide.)	- 74	$1,300.00	$96,200.00

Total UCMR4 Cost: $96,200.00

(1/5 X Total cost for annualized allocation for price comparison) ***$19,240.00***

TOTAL DRINKING WATER ANNUALIZED COST: $393,944.00

(2) WASTEWATER SAMPLES (*)

(A) QUARTERLY TEST: (4 X / year)

Item No	Description	Est. QTY	Cost Per Test	Quarterly Total
7.0	Metals (Cu, Ni, Zn, Al) (Agat WWTP only)	1	$60.00	$60.00

Total Annual Cost: $240.00

(B) ANNUAL TEST:

Item No	Description	Est. QTY	Cost Per Test	Total
8.0	Whole Effluent Toxicity; (purple Sea Urchin Bioassay) *[NDWWTP, HWWTP & AWWTP only]*	3	$1,500.00	$4,500.00

8.1	Heavy Metals (As, Cd, Cr^{3+}, Cr^{6+}, Cu, Hg, Pb Ni, Ag, and Zn) *[all 4 WWTPs]*	4	$180.00	$720.00
8.2	Chlordane and Dieldrin *[Agat WWTP only]*	1	$150.00	$150.00
8.3	All Pesticides (organochlorines, carbamates, herbicides, fungicides, defoliants, and botanicals) ***[see Guam Water Quality Standards-2001 Located in Appendix A]*** *[all 4 WWTPs]*	4	$1,125.00	$4,500.00
8.4	TOC Calibration Reference Test (**Ugum only**. Not a regularly scheduled test. Unit price only in case it is called for). ***[Do not include in Total Cost]***		$50.00	

Total Annual Test Cost: $9,870.00

(C) NPDES PERMIT PERIOD TESTS:

Item No	Description	Est. QTY	Cost Per Test	Total
9.0	Whole Effluent Toxicity Umatac-Merizo WWTP (Fresh water) ***[one time in 2019]***	1	$2,800.00	$2,800.00
9.1	Priority Pollutant Scan ***(a)*** ***(a) once per NPDES permit cycle = one for each WWTP during the Period of this contract.*** *[Appendix F, all GWA WWTP NPDES Permits]*	4	$1,275.00	$5,100.00
	Total for 5-year contract period			$7,900.00
	(1/5 of the total for annualized cost comparison)			***$1,580.00***

TOTAL WASTEWATER ANNUALIZED COST **$11,690.00**

GRAND TOTAL ANNUALIZED COST **$405,634.00**

Summary:

(*) The quantities listed in this bid are based on current information which are specified for evaluation and budgeting purposes. The quantities may change during the period of the contract once awarded. Offerors should consider this as an Indefinite Quantity, Indefinite Delivery bid for contract award when preparing the offers.

Contract Terms:

GWA may enter into a contract on terms acceptable to GWA which shall commence upon vendor's acknowledged receipt of a Notice to Proceed from GWA. The initial term of the contract shall be for a period of three (3) years with an option to renew annually for two additional years. The basis for the multiple year contract is to enhance efficiency, consistency in testing and overall value. The contracts and any extensions thereto are subject to the availability of funds.

Reviewed by: _____
Legal Counsel

Concurred and accepted by the committee members:

_____
Paul Kemp, AGM Compliance and Safety

_____
Carmen Denton, Monitoring Laboratory Services Administrator

_____
Antonio C. Camacho, Buyer II

_____
Nicolas Cabo, Buyer II

_____
Roland Lumongsud, Buyer II

Your approval is greatly appreciated.

In consideration of the foregoing, please indicate your approval of this recommendation by your signature below.

[✓] CONCURRED [ ] UNCONCURRED

VINCENT ED. GUERRERO, SMA

[✓] APPROVED [ ] DISAPPROVED

10·24·18

MIGUEL C. BORDALLO, P.E. GENERAL MANAGER

EXHIBIT C

GUAM WATERWORKS AUTHORITY
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao GU, 96913
Tel: (671) 300-6027 Fax: (671) 649-3750

NOTICE OF CONDITIONAL AWARD

Date: October 19, 2018

Rick Zimmer
Eurofins Eaton Analytical, LLC
750 Royal Oaks Drive, Suite 100
Monrovia CA. 91016
Phone #671-300-6027
Office: +1 949 716 7180

Re: Invitation for Bid Number: IFB 2018-33 Laboratory Services

Hafa Adai Mr. Zimmer,

The Guam Waterworks Authority ("GWA") has considered the bid submitted by Eurofins Eaton Analytical for the above described reference in response to its Advertisement for bid dated September 10, 2018 and you are hereby notified that the Bid Item (s) submitted has been accepted by GWA. Please be advised the Performance and Payment Bond (which must remain in full force and effect until all performance has ended, which includes all warranty periods).

You are also advised that any obligation incurred by your firm prior to execution of the contract is entirely at your own risk and GWA shall have no obligation to reimburse costs incurred prior to execution of the contract.

Please note this Notice of Award is conditional on obtaining the approval of the Guam Consolidated Commission on Utilities for any award over $250,000 and the approval of the Guam Public Utilities Commission where the total value over the life of the contract could exceed $1M. Also, award is conditional upon providing any documents such as proof of licensure, proof of insurance or other documents required to be submitted to GWA under the Bid or Guam law.

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You are required to return an acknowledged copy of this Conditional Notice of Award to the Procurement Administrator.

Sincerely,

Miguel C. Bordallo, P.E.
General Manager

ACCEPTANCE OF CONDITIONAL NOTICE OF AWARD

Receipt of the above Notice of Conditional Award for GWA Bid No. 2018-33 is hereby acknowledged

By: Bosco Ramirez
Signature

Title: President
(please print)

Dated this 26 day of October, 2018.

* * * * * * * * END OF CONDITIONAL NOTICE OF AWARD * * * * * * *

Ref: IFB 2018-33 Laboratory Services

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. 03-FY2019
Relative to Ratification of the Contract with Eurofins Eaton Analytical Inc. for Laboratory Services

What is the project's objective and is it necessary and urgent?
The purpose of this resolution is to ratify the 2013 contract amendments for necessary expenditures for laboratory services, starting from August 2, 2018 through the date the new agreement for laboratory services will be signed after PUC approval.

It was the intention of GWA management to continue laboratory services with Eurofins on a month to month basis for an average anticipated cost of $35,700.00 including a 5% contingency in order to comply with federal and local laws and regulations.

The service is necessary and urgent as GWA is left with no other alternatives.

Where is the location?
Samples will be collected from GWA facilities around the island, and prepared for shipment at the new GWA Laboratory facility in upper Tumon. EPA-certified laboratory services will be provided from Eurofins' laboratory facilities within California.

How much will it cost?
Anticipated monthly cost of $35,700.00 including a 5% contingency from August 2, 2018 through the date the agreement will be signed after PUC approval.

When will it be completed?
GWA Management anticipates the new agreement for laboratory services will be issued at the end of the year, so monthly services covered under this ratification are expected through calendar year 2018.

What is the funding source?
Revenue funded.

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

RESOLUTION NO. 03-FY2019

RELATIVE TO RATIFICATION OF THE CONTRACT EXTENSION WITH EUROFIN EATON ANALYTICAL INC. FOR LABORATORY SERVICES

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 Consolidated Commission on Utilities under Section 5452 of Title 5 of the Guam Code Annotated has the authority to ratify the procurement of goods and services if there is no indication that the company who was awarded the procurement acted in bad faith and there is a finding that the procurement is for GWA's use and is in the best interest of the Territory of Guam; and

WHEREAS, in April of this year, GWA Compliance and Safety initiated a procurement to replace the current Laboratory Services Contract that was competitively procured in 2013 with a contract date of August 2, 2013 which, after completing two extensions was set to expire on August 2, 2018; and

WHEREAS, on May 7, 2018, GWA put out an Invitation for Bid (IFB) (Exhibit A) that was opened on May 23, 2018, soliciting bid proposals from experienced and responsive bidders for a US Environmental Protection Agency certified lab able analyze water and wastewater sample provided by the Guam Waterworks Authority ("GWA") in a manner that meets the "Standardized Monitoring Requirements" established by the Guam Environmental Protection Agency as provided under the Safe Drinking Water Act and the Guam Primary and Secondary Safe Drinking Water Regulations; and

WHEREAS, after a thorough analysis of the two bids offered at that time, GWA determined that neither bidder was entirely responsive to the technical requirements set forth in the procurement and all bids were rejected (Exhibit B); and

WHEREAS, the procurement documents were revised by GWA regulatory and compliance personnel in preparation to re-bid the solicitation which was advertised on September 10, 2018 (Exhibit C); and

WHEREAS, numerous inquiries came in from potential bidders requesting clarifications which resulted in delaying the opening of the bids to September 27, 2018 (Exhibit D); and

WHEREAS, a conditional award was issued to Eurofins Eaton Analytical, LLC on October 19, 2018 (Exhibit E) (See CCU Resolution 02-FY2019) however, due to the anticipated contract amount, that award requires CCU and PUC approval, which will delay the execution of the contract for this procurement until after the PUC meeting in late December of this year; and

WHEREAS, the average annual anticipated costs for the Laboratory Services is Four Hundred Five Thousand Dollars ($405,000.00) which on a monthly basis, averages approximately Thirty-Five Thousand Seven Hundred Dollars ($35,700.00) including a five-percent (5%) contingency; and

WHEREAS, GWA seeks approval from the CCU to ratify the 2013 contract amendments from August 2, 2018 through the date the agreement will be signed after PUC approval at an estimated monthly cost of Thirty-Five Thousand Seven Hundred Dollars ($35,700.00) per month for laboratory services; and

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DRAFT

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

Section 1. The foregoing recitals hereto are hereby ratified, confirmed, and incorporated herein by reference.

Section 2. The Consolidated Commission on Utilities hereby ratifies spending under the existing contract amendments from August 2, 2018 through the end of calendar 2018 at an estimated Thirty-Five Thousand Seven Hundred Dollars ($35,700.00) per month for laboratory services on the following grounds:

a. There was no indication of bad faith or fraud in any of the procurements contained herein.

b. According to GWA management, the services is required to ensure for the ongoing need for analytical testing to comply with the Clean Water Act, the Safe Drinking Act and the 2011 Court Order. The recitals set forth above hereby constitute the findings of the CCU.

c. All of the procurements herein are in the best interest of the Territory of Guam and the Guam Waterworks Authority.

d. Only a reasonable profit was given in those instances where the profit was given.

Section 3. This Resolution is hereby determined to be a declaration of official intent of the Consolidated Commission on Utilities

Section 4. All actions heretofore taken by the GWA or the officers thereof or on their behalf not inconsistent herewith related to these purchases are hereby ratified, approved and confirmed.

Section 5. Based on the foregoing, the CCU authorizes GWA management to pay the amount owed between GWA and Eurofin Eaton Analytical Inc. for the laboratory services at an estimated monthly cost of Thirty-Five Thousand Seven Hundred Dollars ($35,700.00) through the end of calendar year 2018.

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

DULY AND REGULARLY ADOPTED, this 27th day of November, 2018.

Certified by: Attested by:

_____ _____

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

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

///

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EXHIBIT A

GUAM DAILY POST • MONDAY, MAY 7, 2018

Sunscreen ban gains Hawaii support, not certain if Guam will catch up

By Jamie Ward
jamie@postguam.com

While Hawaii passed legislation May 1 banning the sale of sunscreen containing chemicals believed to be harmful to coral reefs, it's unclear if Guam will catch up soon.

The state's move has rekindled a debate on what's more important: Protecting corals, or keeping sunscreens accessible to protect skin from damaging effects of the sun that could lead to cancer?

The Guam Daily Post asked certain senators if they're likely to adopt a move similar to Hawaii's, but there have been no Guam legislative takers so far.

The Hawaii bill awaits the signature of the governor, and the rules don't go into effect until 2021. The legislation would prohibit the distribution of sunscreens containing the chemicals oxybenzone and octinoxate, which some scientists believe contribute to coral bleaching when washed off in the ocean.

The Consumer Healthcare Products Association a 137-year-old national trade association, representing the leading manufacturers and marketers of over-the-counter medicines and dietary supplements, challenged the sunscreen ban.

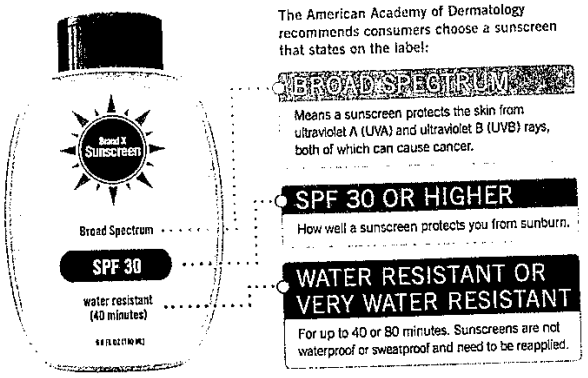
"The health, safety and welfare of millions of Hawaii residents and tourists has been severely compromised by the passage of (legislation) that will ban at least 70 percent of the sunscreens on the market today, based on weak science blaming sunscreens for damage to coral reefs," the trade organization stated recently.

"This irresponsible action will make it more difficult for families to protect themselves against the sun's harmful ultraviolet rays, and it is contrary to the many concerns expressed by Hawaii's medical doctors, dermatologists, and public health experts."

Banning oxybenzone and octinoxate – key ingredients in effective sunscreens on the market – will drastically and unnecessarily reduce the selection of safe and effective sunscreen products available to residents and visitors, the industry group stated.

Oxybenzone and octinoxate, found in the majority of sunscreens, are safe and effective over-the-counter active ingredients recognized by the Food and Drug Administration as important aids in decreasing the risk of developing skin cancer, the industry group stated.

"This ban also avoids the real causes of coral decline according to scientists in Hawaii and around the world: global warming, agricultural runoff, sewage, and overfishing," the industry group stated.



Skin protection

Sunscreen products are regulated as over-the-counter drugs by the U.S. Food and Drug Administration.

The FDA has several safety and effectiveness regulations in place that govern the manufacture and marketing of all sunscreen products, including safety data on its ingredients, according to the American Academy of Dermatology.

"Using sunscreen, seeking shade and wearing protective clothing are all important behaviors to reduce your risk of skin cancer," the academy states. "Scientific evidence supports the benefits of using sunscreen to minimize short-term and long-term damage to the skin from the sun's rays."

"Preventing skin cancer and sunburn outweigh any unproven claims of toxicity or human health hazard from ingredients in sunscreens," the academy stated.

According to the dermatologists' group, sunlight consists of two types of harmful rays that reach the earth — UVA rays and UVB rays. Overexposure to either can lead to skin cancer. In addition to causing skin cancer, the academy states, here's what each of these rays do:

- UVA rays, or aging rays, can prematurely age your skin, causing wrinkles and age spots, and can pass through window glass.
- UVB rays, or burning rays, are the primary cause of sunburn and are blocked by window glass.

Appointment of Palacios to Customs questioned

By Kevin Kerrigan
kevin@postguam.com

A former member of Lt. Gov. Ray Tenorio's staff has raised questions about the appointment of Eric Palacios as director of the Guam Customs and Quarantine Agency.

Geraldine Castillo said she was the recipient of a series of what she described as "inappropriate emails" sent to her by Palacios in 2011 when she was a staff assistant and Palacios was on the lieutenant governor's staff as the administrator of the Guam State Clearinghouse.

Castillo said she never filed a sexual harassment complaint against Palacios, but she brought the emails to the attention of her supervisor, who then raised the issue with the lieutenant governor.

"I spoke to Eric about this, this has been many years ago," Tenorio said when asked about the incident last week. "It came out in the media, you can find the articles," he said.

Tenorio could not recall exactly what Palacios' response was. "I don't know whether, either Eric apologized for it, or acknowledged it, but I know it was something that did come out in the media."

However, Tenorio emphasized, "We don't tolerate it and I know I spoke to him about it, particularly saying we do not tolerate this stuff."

"I beg to differ," said Castillo. "In fact, I was admonished."

Castillo told The Guam Daily Post that the lieutenant governor "was never involved and did not handle it himself." Castillo said, "He delegated it to Dong Choe, his chief of staff at the time," and she was "summoned to Dong's office," where she "was ordered to apologize to Eric." She said Palacios threatened to sue her for defamation of character.

"I was ordered by Dong Choe, to apologize to Eric for sending me inappropriate messages," she said. Did Eric apologize? Never."

Contacted for his comment, Palacios issued the following statement to the Post: "I stand by the resolution of this matter in 2011. This situation involves two former colleagues, was investigated, and no harassment was substantiated. We did apologize to each other, and we have not had any contact since. I hope she is doing well and I continue to wish her the best."

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao, Guam 96913
Tel: (671) 300-6026/27 | Fax: (671) 649-3750

*THIS AD IS PAID FOR BY GWA (PUBLIC LAW 26-12)

INVITATION FOR BID

The GUAM WATERWORKS AUTHORITY will receive sealed bids for the following **GWA IFB 2018-05 for Laboratory Services.** Bids will be accepted until **10:00 a.m.** Chamorro Standard Time, **May 23, 2018** and **GWA IFB 2018-16 for Pick-Up Trucks 4 x 2 Regular Cab.** Bids will be accepted until **2:00 p.m.** Chamorro Standard Time, **May 23, 2018** at the GWA Procurement Office first floor located at the Gloria B. Nelson Public Services Building in Mangilao at which time and place all bids will be publicly opened and read aloud. All bids must be accompanied by a Bid / Performance Bond in the amount of fifteen percent (15%) of the total bid price. Bid security may be bid/performance bond, Surety Bond, certified check or cashier's check made payable to Guam Waterworks Authority. A non-refundable amount of $15.00 is required for the purchase price of every set of bidding documents which are available at the GWA Procurement Office. Bidders can download a bid package at www.guamwaterworks.org without charge, although vendors are strongly encouraged to contact or visit GWA Procurement Office to register to ensure that updated information, notices or bid amendments are distributed to you.

GWA reserves the right to revise or reject any or all proposals and to waive any minor imperfection in the bid proposal in the interest of the Guam Waterworks Authority.

MIGUEL C. BORDALLO, P.E.
General Manager

EXHIBIT B

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

Subject: IFB Number: 2018-05
For: Laboratory Services
Reference: Re-bid
Bid Opening Date: June 05, 2018
Time: 10:00 AM

Vendor Names Registered Bids:
Eurofins Eaton Analytical LLC.
ARS Aleut Analytical
DG
SGS Guam Inc.
SGS Philippines, Inc.
M.D Wholesale
Cassidy's Associated Insurers, Inc

Evaluations Committee Findings:
Submittals:
Eurofins Eaton Analytical LLC.
ARS Aleut Analytical

The committee members determines that both bid submittals were Nonconformance with the "All or None" requirements, and therefore both offers are deemed non responsive, and thereby the evaluation committee recommends to issue a Re-Bid

Please see attached: **"All or None Bids Proposals."**

7.17.18
Miguel C. Bordallo, P.E. GM

(✓) Approve ( ) Disapprove

Vincent Guerrero, Supply Administrator

(✓) Approve ( ) Disapprove

CHAPTER 3
SOURCE SELECTION AND CONTRACT FORMATION

f *All or None* **Bids or Proposals.** Only when provided by the solicitation may a bid or proposal limit acceptance to the entire bid or proposal offering. Otherwise, such bids or proposals shall be deemed to be nonresponsive. If the bid or proposal is properly so limited, the territory shall not reject part of such bid or proposal and award on the remainder.

GUAM WATERWORKS AUTHORITY

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688 Route 15, Mangilao, Guam 96913
Tel: (671) 300-6027 Fax: (671) 649-3750

BID STATUS

Date: July-16-2018

ARS Aleut Analytical
3710 Woodland Dr. Suite 900
Anchorage, AK 99517
TEL: 907-841-9478 -FAX: 907-258-6634

Bid Invitation No. GWA IFB 2018-05 Opened: June 05, 2018 @ 10:00AM

Description: Laboratory Services

The following is the result of the above-mentioned bid. Refer to the items checked below.

[x] Cancelled in its entirety.

[x] **Rejected due to:**

- [ ] Late submission of bid
- [ ] No bid security or insufficient bid security amount submitted as required by Section 11 of the General Terms and Conditions
- [ ] Not meeting the delivery requirement as stated in the IFB
- [x] Non-conformance with the "All or None" requirements.
- [ ] Inability to provide future maintenance and services to the equipment
- **[ ] High price:**
- [ ] Other:

[ ] Bid is recommended for award to: re-bid

Remarks: Thank you for your time and participation.

Miguel C. Bordallo P.E
General Manager

Mary Torres

From: Mary Torres <mtorres@guamwaterworks.org>
Sent: Tuesday, July 17, 2018 1:51 PM
To: Rick Zimmer
Cc: TCAMACHO ; Victoria Heacock
Subject: Bid Status - (RE-BID) GWA IFB 2018-05
Attachments: doc03555820180717133743.pdf

Hafa Adai Rick,

Please see attached Bid Status for IFB 2018-05 (RE-BID) Laboratory Services, bid is recommended for award to Re-Bid. Kindly acknowledge and send back the soonest.

Please feel free to contact me if you have any questions. Have a great day!

Adios,

Mary D. Torres
Buyer II
671-300-6032
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, Guam 96913
Fax. No.: (671) 649-3750
Better Water Better Lives
better Water Better Lives
GUAM [illegible] AUTHORITY

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, Guam 96913
Tel: (671) 300-6027 Fax: (671) 649-3750

BID STATUS

Date: July-16-2018

Eurofins Eaton Analytical, LLC
750 Royal Oaks Drive, Suite 100
Monrovia Ca, 91016
TEL: 625-386-1100 -FAX: 626-386-1101

Bid Invitation No. GWA IFB 2018-05 Opened: June 05, 2018 @ 10:00AM

Description: Laboratory Services

The following is the result of the above-mentioned bid. Refer to the items checked below.

[x] Cancelled in its entirety.

[x] **Rejected due to:**

- [ ] Late submission of bid
- [ ] No bid security or insufficient bid security amount submitted as required by Section 11 of the General Terms and Conditions
- [ ] Not meeting the delivery requirement as stated in the IFB
- [x] Non-conformance with the "All or None" requirements.
- [ ] Inability to provide future maintenance and services to the equipment
- **[ ] High price:** [ ] Other:

[ ] Bid is recommended to: re-bid

Remarks: Thank you for your time and participation.

Miguel C. Bordallo P.E
General Manager

Mary Torres

From: Mary Torres <mtorres@guamwaterworks.org>
Sent: Tuesday, July 17, 2018 1:47 PM
To: 'Zenon Belanger'
Cc: TCAMACHO ; Victoria Heacock
Subject: Bid Status - (RE-BID) GWA IFB 2018-05
Attachments: doc03555720180717133736.pdf

Hafa Adai Zenon,

Please see attached Bid Status for IFB 2018-05 (RE-BID) Laboratory Services, bid is recommended for award to Re-Bid. Kindly acknowledge and send back the soonest.

Please feel free to contact me if you have any questions. Have a great day!

Adios,

Mary D. Torres
Buyer II
671-300-6032
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, Guam 96913
Fax. No.: (671) 649-3750
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1

EXHIBIT C

Pacific Daily News - 09/10/2018 Copy Reduced to 79% from original to fit letter page Page : A29

Sports

Djokovic, del Potro meet in final

Sandra Harwitt
Special to USA TODAY

NEW YORK – Last year, Novak Djokovic was watching the US Open from his couch at home while worrying about overcoming a stressful right elbow injury.

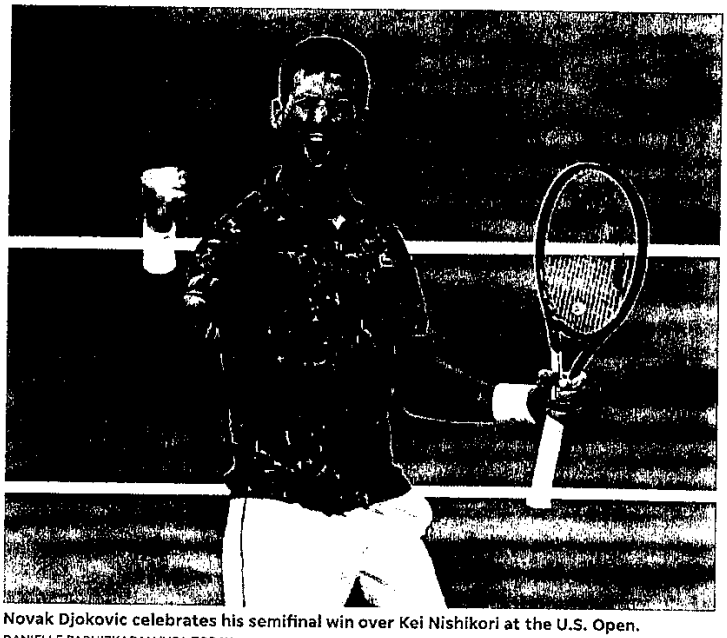
The injury, which required surgery after this year's Australian Open, ended his streak of playing 51 consecutive Grand Slam tournaments.

That is now a distant memory for the Serb, who is back to being a contender at every Grand Slam contested. While Djokovic initially struggled in his comeback from surgery, by Wimbledon he was ready to do damage again, and competently captured his 13th Grand Slam title.

On Sunday, Djokovic will meet third-seeded Juan Martin del Potro of Argentina, the 2009 US Open champion, in the 23rd Grand Slam final of his career.

The sixth-seeded Djokovic advanced to the final in quick order, bypassing 21st-seeded Kei Nishikori of Japan 6-3, 6-4, 6-2 Friday night. Earlier, del Potro moved into his second career Grand Slam final when leading, 7-6 (7-3) 6-2, world No. 1 Rafael Nadal retired from the match with a knee injury.

Djokovic's strategy in the final will be to counter del Potro's two big weapons: his serve and forehand. The Serb does own a 14-4 lifetime record over del Potro that should bolster his confidence.



Novak Djokovic celebrates his semifinal win over Kei Nishikori at the U.S. Open.
DANIELLE PARHIZKARAN/USA TODAY

This will not be the first encounter between the two at the US Open. They met here in the 2007 third round and 2012 quarterfinals. Djokovic prevailed on both occasions.

"I've played him many times on different occasions," Djokovic said. "We've never faced each other in a Grand Slam final, so that's something new.

"One of the keys of the match will be return; how well I can return, how many returns I can get back in play, but also try to have some depth in that return, and how accurately I can serve myself."

For Djokovic, the US Open title quest is about more than just picking up a 14th major trophy.

He's hoping to score back-to-back Wimbledon and US Open titles for the third time in his career. He previously achieved that feat in 2011 and 2015, the two times he won the US Open in seven final appearances in New York.

Del Potro, who underwent four wrist surgeries after winning his lone Grand Slam trophy at the US Open in 2009, shocked Roger Federer in that five-set thriller on Arthur Ashe stadium. It's no wonder the Argentine constantly refers to the US Open as his favorite tournament in the world.

Nevertheless, winning the title will require more than calling the Open his favorite place.

"It will be a difficult match because we are close friends," del Potro said. "For sure, we both want to win. But Novak has won the Wimbledon already. He's playing so good. He will be the favorite to win on Sunday. But I don't know. When I played Roger nine years ago, he was the favorite to win, as well. I will try to make the surprise again.

"I'm here," he added. "I'm excited to keep surprising the tennis world, as I did with myself. (You) never know what could happen in the future. So I'm happy just to be a tennis player again after all my wrist problems."

If del Potro has one special ingredient in his corner it's that he's likely to receive a heftier share of the crowd support in the final. He's a fan favorite in these parts, and coupled with 12 boisterous fans who traveled here from his hometown of Tandil, the stadium will be rocking.

And Djokovic doesn't hesitate in admitting he understands the appeal of his opponent.

"He's a gentle giant," Djokovic said. "He really is. He's very tall, has a big game, but at the same time he nurtures the right values in life. He cares about his family. He cares about his friends. He respects everyone. He fights every match from the first to the last point. I think people can relate to that and appreciate what he brings to the tennis."

CONTRACTORS LICENSE BOARD
Inetnon Malisensiayen Kontratista
542 North Marine Corp Drive A. – Tamuning, Guam 96913
649-2211, 649-9676, 649-2210 (Fax)
EDDIE BAZA CALVO GOVERNOR
EDUARDO R. BROONES EXECUTIVE DIRECTOR

NOTICE OF GOVERNMENT MEETING

The Contractors License Board regular board meeting will be held on **Wednesday, September 12, 2018 at 10:00 a.m.** at the Contractors License Board conference room, located at 542 North Marine Corps Drive in Upper Tumon.

For any special accommodations, please contact 649-2211/9676.

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"Better Water, Better Lives."
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, Guam 96913
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*THIS AD IS PAID FOR BY GWA (PUBLIC LAW 26-12)

INVITATION FOR BID

The GUAM WATERWORKS AUTHORITY will receive sealed bids for **Laboratory Services Re-Bid in GWA IFB. NO. 2018-33.** Bids will be accepted until **10:00 a.m.** Chamorro Standard Time. **September 27, 2018** at the GWA Procurement Office first floor located at the Gloria B. Nelson Public Services Building in Mangilao at which time and place all bids will be publicly opened and read aloud. All bids must be accompanied by a Bid / Performance Bond in the amount of fifteen percent (15%) of the total bid price. Bid security may be bid/performance bond, Surety Bond, certified check or cashier's check made payable to Guam Waterworks Authority. A non-refundable amount of $15.00 is required for the purchase price of every set of bidding documents which are available at the GWA Procurement Office. Bidders can download a bid package at www.guamwaterworks.org without charge, although vendors are strongly encouraged to contact or visit GWA Procurement Office to register to ensure that updated information, notices or bid amendments are distributed to you.

GWA reserves the right to revise or reject any or all proposals and to waive any minor imperfection in the bid proposal in the interest of the Guam Waterworks Authority.

Miguel C. Bordallo, P.E.
General Manager

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September 12, 2018 11:01 am (GMT -10:00)
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GUAM DAILY POST • MONDAY, SEPTEMBER 10, 2018

CURRENCY EXCHANGE RATES
On Sept. 7, $1 was worth:

Keep posted and get more data and details online. Log on to see real time market data with our stock market tool at postguam.com/stock_market.

53.669 PHP₱	110.64 JPY¥	1,122.8 KRW₩	30.772 TWD NT$	6.8374 CNY¥	1.3992 AUD A$	0.8594 EUR €

Young logistics company aims to battle Amazon

(Chicago Tribune) - With $40 million in new investments announced Thursday, Chicago-based e-commerce logistics company ShipBob is eyeing an expansion — starting with a new fulfillment warehouse and a push to hire 100 people in the next year.

The startup aims to help small to midsize e-commerce companies ship their products at speeds similar to Amazon. Shipping logistics tends to be the hardest part of launching an e-commerce brand, said Dhruv Saxena, ShipBob's co-founder and CEO.

"The expectation from a customer standpoint is that they will get all of their e-commerce orders delivered to them like Amazon Prime: same-day, next-day," he said. "These e-commerce businesses don't have the infrastructure to support that customer expectation."

ShipBob plans to use its $40 million round of funding to continue working toward that capability and improve its software platform. Its new facility in suburban Cicero, Illinois, is six times larger than the company's previous Chicago-area warehouse. It can facilitate same-day delivery for Chicago-area customers ordering products from e-commerce platform Shopify.

Increasing competition

Other e-commerce fulfillment companies also are investing in the Chicago area to keep up with booming demand from online shoppers.

Las Vegas-based Rakuten Super Logistics announced Wednesday that it would open two additional fulfillment centers, one in New Jersey and the other in suburban McCook, which is expected to open in October. Amazon also has been bulking up its presence in the area and now operates more than half a dozen facilities in Illinois.

There is room in the e-commerce fulfillment world for a company besides Amazon, said Sunil Chopra, a professor at Northwestern University's Kellogg School of Management. To compete with the tech giant and other players, ShipBob will need to take advantage of its scale to lower the cost of its services for customers.

"That is the key," he said.

ShipBob's new Cicero warehouse is roughly the size of two football fields. The space is still filling up, but already occupying the shelves are products from at least 1,000 e-commerce companies, including quinoa snack brand I Heart Keenwah and apparel-maker Creepy Co., both based in Chicago. There are rows of bins filled with smaller items, such as watch straps and zombie T-shirts, and racks of unpacked boxes stuffed with products from socks to back-hair trimmers waiting to be ordered. Workers move between the rows, putting boxes on racks and sorting through pallets. Employees pull deconstructed boxes from piles for packaging.

"There was a time when we knew all the clients and products, and that's long gone," co-founder Jivko Bojinov said on a recent afternoon, as he walked through the rows of items.

In about a year, ShipBob grew to more than 350 employees from 60. The company's hiring plans for the next year are fueled by its plans to open more fulfillment centers and double the size of its software engineering team, Saxena said.

Hard work poured into coffee shop



UNIQUE-LOOKING BUSINESS: *Peter and Hiroko Walls, with their sons Willim, left, and Noel, stand in front of the Slingstone Coffee and Tea on Marine Drive across the Adelup intersection. An old shipping container was converted into the coffee shop. According to Peter Walls, the couple worked on the project for nearly two years before being able to open the business. Walls estimates that he has spent nearly $300,000 to launch the drive-thru concept. Norman M. Taruc/The Guam Daily Post*



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*THIS AD IS PAID FOR BY GWA (PUBLIC LAW 26-12)

INVITATION FOR BID

The GUAM WATERWORKS AUTHORITY will receive sealed bids for **Laboratory Services Re-Bid, in GWA IFB. NO. 2018-33.** Bids will be accepted until **10:00 a.m.** Chamorro Standard Time, **September 27, 2018** at the GWA Procurement Office first floor located at the Gloria B. Nelson Public Services Building in Mangilao at which time and place all bids will be publicly opened and read aloud. All bids must be accompanied by a Bid / Performance Bond in the amount of fifteen percent (15%) of the total bid price. Bid security may be bid/performance bond, Surety Bond, certified check or cashier's check made payable to Guam Waterworks Authority. A non-refundable amount of $15.00 is required for the purchase price of every set of bidding documents which are available at the GWA Procurement Office. Bidders can download a bid package at www.guamwaterworks.org without charge, although vendors are strongly encouraged to contact or visit GWA Procurement Office to register to ensure that updated information, notices or bid amendments are distributed to you.

GWA reserves the right to revise or reject any or all proposals and to waive any minor imperfection in the bid proposal in the interest of the Guam Waterworks Authority.

MIGUEL C. BORDALLO, P.E.
General Manager

EXHIBIT D

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives"
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, Guam 96913
PH: 300-6027/30 FAX: 649-3750

September 19, 2018

Bid Amendment No. 1
Invitation for Bid No: 2018-33
For: Laboratory Services (Re-Bid)

Prospective Bidders are hereby notified of the following:

Bid opening date scheduled for September 27, 2018 at 10:00 a.m. has been rescheduled.

New bid opening date and time is scheduled for October 09, 2018 @ 10:00 a.m.

Nothing Follows:

Vincent E. Guerrero, CPM
Supply Management Administrator

EXHIBIT E

GUAM WATERWORKS AUTHORITY
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao GU, 96913
Tel: (671) 300-6027 Fax: (671) 649-3750

NOTICE OF CONDITIONAL AWARD

Date: October 19, 2018

Rick Zimmer
Eurofins Eaton Analytical, LLC
750 Royal Oaks Drive, Suite 100
Monrovia CA. 91016
Phone #671-300-6027
Office: +1 949 716 7180

Re: Invitation for Bid Number: IFB 2018-33 Laboratory Services

Hafa Adai Mr. Zimmer,

The Guam Waterworks Authority ("GWA") has considered the bid submitted by Eurofins Eaton Analytical for the above described reference in response to its Advertisement for bid dated September 10, 2018 and you are hereby notified that the Bid Item (s) submitted has been accepted by GWA. Please be advised the Performance and Payment Bond (which must remain in full force and effect until all performance has ended, which includes all warranty periods).

You are also advised that any obligation incurred by your firm prior to execution of the contract is entirely at your own risk and GWA shall have no obligation to reimburse costs incurred prior to execution of the contract.

Please note this Notice of Award is conditional on obtaining the approval of the Guam Consolidated Commission on Utilities for any award over $250,000 and the approval of the Guam Public Utilities Commission where the total value over the life of the contract could exceed $1M. Also, award is conditional upon providing any documents such as proof of licensure, proof of insurance or other documents required to be submitted to GWA under the Bid or Guam law.

/

/

You are required to return an acknowledged copy of this Conditional Notice of Award to the Procurement Administrator.

Sincerely,

Miguel C. Bordallo, P.E.
General Manager

ACCEPTANCE OF CONDITIONAL NOTICE OF AWARD

Receipt of the above Notice of Conditional Award for GWA Bid No. 2018-33 is hereby acknowledged

By: Bosco Ramirez
Signature

Title: President
(please print)

Dated this 26 day of October, 2018.

* * * * * * * * END OF CONDITIONAL NOTICE OF AWARD * * * * * * *

Ref: IFB 2018-33 Laboratory Services

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. 04-FY2019
Relative to the Approval of a Multi-Year Lease Agreement for Heavy Equipment

What is the project's objective and is it necessary and urgent?
The objective is to insure that GWA's water and wastewater operations divisions have access at all times to the equipment necessary for daily operational requirements. The long-term lease of additional equipment with maintenance services provided by the vendor will insure maximum availability of the equipment, reduce short-term rental costs when GWA-owned equipment goes down, and can be used by GWA to supplement daily operational requirements in the performance of many the smaller CIP projects and water and wastewater repairs using in-house crews.

Where is the location?
Equipment will be used island-wide, throughout GWA's systems.

How much will it cost?
This is a five (5) year contract term in the amount of $1,160,829.00.

When will it be completed?
The contract is set for a total term of five (5) years.

What is the funding source?
O & M

The RFP/BID responses (if applicable):
- 4 downloaded.
- 1 bid submitted.
- Morrico Equipment LLC awarded the Bid.

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

RESOLUTION NO. 04-FY2019

RELATIVE TO THE APPROVAL OF A MULTI-YEAR LEASE AGREEMENT FOR HEAVY EQUIPMENT

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 GWA General Manager has determined that the rate-payers will be best served by the Authority performing many of the smaller CIP projects and water and wastewater repairs using in-house crews, for which reliable, operating heavy equipment is needed; and

WHEREAS, GWA Water Distribution Division and Wastewater Collections Division are frequently delayed in performing regular repair activities because of a shortage of heavy equipment, and the frequent repairs to GWA's ageing equipment fleet to keep them operational; and

WHEREAS, GWA frequently incurs additional costs for short-term equipment rentals to augment daily operations when GWA's own equipment is inoperable; and

WHEREAS, the GWA General Manager requests approval from the CCU to enter into a five (5) year lease to provide multiple pieces of heavy equipment for in-house use by GWA; and

DRAFT

WHEREAS, GWA went out for procurement on May 31, 2018 through IFB-2018-12 for the following nine pieces of equipment:

- (3 each) 4-wheel drive backhoes
- (3 each) heavy-duty trailers
- (3 each) tandem dump trucks

inclusive of full service and maintenance programs for the full term of the lease; and

WHEREAS, although four bidders picked up the procurement packet, two bidders attended the mandatory pre-bid conference, only one bidder submitted a formal bid; and

WHEREAS, after several bid opening extensions required by extensive bidder questions, the bid was opened on September 18, 2018; and

WHEREAS, Morrico Equipment, LLC was the sole bidder on the procurement (See Exhibit A for pricing and specifications); and

WHEREAS, the monthly lease payment for each piece of equipment varied substantially depending on the number of months the lease is in effect; and

WHEREAS, a simple analysis on the pricing variations between the 3, 4 and 5 year options clearly shows that the five-year option was the highest and best use of rate-payer funds for this equipment (See Exhibit A - Yearly Bid Pricing); and

WHEREAS, while a three (3) year term would be within the General Manager's discretionary spending authority, the five (5) year term lease charges are twenty-nine (29%) lower on an annual basis; and

WHEREAS, to increase the availability of the minimum amount of operating heavy equipment necessary for daily operations, and to facilitate self-performing pipeline maintenance and small water and wastewater projects, three truck-trailer-backhoe equipment sets are necessary; and

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WHEREAS, GWA Management seeks CCU approval of the five (5) year contract lease with Morrico Equipment, LLC in the amount of One Million One Hundred Sixty Thousand Eight Hundred Twenty-Nine Dollars ($1,160,829.00) for five (5) years ($19,347.00 per month) (see Exhibit B – Projected Payment Schedule); and

WHEREAS, GWA further seeks CCU approval to petition the PUC for its approval under the Contract Review Protocol to award the lease to Morrico Equipment, LLC in the amount of One Million One Hundred Sixty Thousand Eight Hundred Twenty-Nine Dollars ($1,160,829.00) for five (5) years ($19,347.00 per month); and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities, as the Governing Body of the Guam Waterworks Authority, does hereby approve and authorize the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the proposed lease agreement submitted by Morrico Equipment, LLC is reasonable, prudent and necessary.
3. The CCU hereby further authorizes the management of GWA to enter into a lease agreement with Morrico Equipment, LLC, to provide nine (9) pieces of heavy equipment for GWA in-house crews for a term of five (5) years as specified in the IFB 2018-12.
4. The CCU hereby further approves the funding total of One Million One Hundred Sixty Thousand Eight Hundred Twenty-Nine Dollars ($1,160,829.00) over five (5) years (Exhibits A and B).
5. GWA Management is authorized to seek approval from the PUC as required under the Contract Review Protocol, to award the lease to Morrico Equipment, LLC.
6. The CCU further determines that GWA may use this Resolution as a justification under Section 6 of the Contract Review Protocol.

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

DULY AND REGULARLY ADOPTED, this 27nd day of November, 2018.

Certified by:

_____
JOSEPH T. DUENAS
Chairperson

Attested by:

_____
J. GEORGE BAMBA
Secretary

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

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Exhibit A

MORRICO EQUIPMENT — Employee Owned —
Sales, Rental, Parts and Service

GUAM 96913
OFFICE: Phone: 1-671-649-1946
FAX: 1-671-649-1947
SPARE PARTS: Phone: 1-671-646-7914
Fax: 1-671-646-7900
WEB: www.morricoequipment.com

25 YEARS

FREIGHTLINER Run Smart · KOHLER Generators · FUSO TRUCKS · HYUNDAI CONSTRUCTION EQUIPMENT · Thomas BUILT BUSES

Miguel C. Bordallo, General Manger
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913

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

COPY

Guam Waterworks Authority
Invitation to Bid
GWA IFB No. 2018-12
Heavy Equipment Lease

Dated : 18 September 2018
10:00 am

Submitted By :
Morrico Equipment LLC
197 Ypao Road
Tamuning, Guam 96913

ON-SITE DIESEL DELIVERY

TRASHCO · GUAM · · NEW HOLLAND · Mercedes-Benz powered · DETROIT DIESEL CORPORATION · PALFINGER · BOMAG FAYAT GROUP

I. BID ITEM(s)

Long Term Operating Lease & Maintenance Agreement for following:

Item No.	Description	Qty	Cost Year 1	Cost Year 2	Cost Year 3
1.0	4X4 Backhoe Loader	3 sets	$ 36 Months : $ 111,781.76 48 Months : $ 92,157.05 60 Months : $ 80,331.91	$ 36 Months : $ 111,781.76 48 Months : $ 92,157.05 60 Months : $ 80,331.91	$ 36 Months : $ 111,781.76 48 Months : $ 92,157.05 60 Months : $ 80,331.91
2.0	6X4 Dump Truck 16 Cubic Yard (New)	3 sets	$ 36 Months : $ 183,252.34 48 Months : $ 151,031.50 60 Months : $ 131,651.87	$ 36 Months : $ 183,252.34 48 Months : $ 151,031.50 60 Months : $ 131,651.87	$ 36 Months : $ 183,252.34 48 Months : $ 151,031.50 60 Months : $ 131,651.87
3.0	Backhoe Trailer	3 sets	$ 36 Months : $ 28,083.13 48 Months : $ 23,152.80 60 Months : $ 20,181.94	$ 36 Months : $ 28,083.13 48 Months : $ 23,152.80 60 Months : $ 20,181.94	36 Months : $ 28,083.13 48 Months : $ 23,152.80 $ 60 Months : $ 20,181.94

Item No.	Description	Qty	Cost Year 4	Cost Year 5
1.0	4X4 Backhoe Loader	3 sets	$ 36 Months : NA 48 Months : $ 92,157.05 60 Months : $ 80,331.91	$ 36 Months : NA 48 Months : NA 60 Months : $ 80,331.91
2.0	6X4 Dump Truck 16 Cubic Yard (New)	3 sets	$ 36 Months : NA 48 Months : $ 151,031.50 60 Months : $ 131,651.87	$ 36 Months : NA 48 Months : NA 60 Months : $ 131,651.87
3.0	Backhoe Trailer	3 sets	$ 36 Months : NA 48 Months : $ 23,152.80 60 Months : $ 20,181.94	$ 36 Months : NA 48 Months : NA 60 Months : $ 20,181.94

SPECIAL PROVISIONS:

The Contractor shall provide for all spare parts, carry out repairs and maintenance, change oil/lubricants and other disposable supplies as needed for the equipment's at no additional cost to GWA. In case of any mechanical breakdown or failure, the Contractor shall exhort all ways and means possible to restore the Heavy Equipment(s) in good working conditions immediately. The Contractor shall be responsible to carry out recoveries in cases of breakdowns or accidents.

Good Working Condition means the Heavy Equipment performs at its optimum capacity without technical / mechanical deficiencies or glitches.

Heavy Equipment(s) rendered unserviceable following a breakdown, repeated breakdown(s) within a short period (two (2) times within a week) other than unforeseen events, GWA reserves the right to request said Heavy Equipment(s) to be replaced within twenty- four (24) hours of receipt of notification from GWA.

In the event that no replacement equipment is made available or provided, GWA reserves the rights to engage any other contractor to provide the Services and deduct all charges incurred from the Contractors monthly payment.

GENERAL SPECIFICATION ON ITEM 1.0 (OR APPROVED EQUAL):

Type:

- 4-in-1 backhoe loader.

Description:

- 4-in-1 backhoe loader with extended dig depth.

Intended Service:

- Exploratory digging, concrete & asphalt breaking and removal, tampering & road repairs.

ENGINE:

Induction:

- Turbo.
- Power rating @ 2,200 rpm; 100rpm: 100 HP, (minimum requirement).
- Net power rating @ 2,000 rpm: 98 HP, (minimum requirement).
- Net torque @ 1,4000 rpm: 290 ft. lbs., (minimum requirement).
- Displacement: 276 cu. in., (minimum requirement).

Cab Specifications:

- **Fully Enclosed Cab.**
- Modular-design ROPS/FOPS cab with molded roof: Isolation mounted.
- Left& Right access.
- Slip-resistant steps and ergonomically located handholds.
- Molded floor mats.
- Headliner.
- 12-volt outlets (2).
- Auto-idle.
- Interior rearview mirror.
- Interior front-view mirrors.
- Outside rearview mirrors.
- Stabilizer controls in the left armrest.
- Rotary-dial hand throttle.
- Suspended foot throttle.
- Tilt steering, infinitely adjustable.
- Horn in side console.
- Seat belt, 76-mm (3 in.) with retractor.
- Key start switches with electric fuel shutoff.
- Electronic anti-theft enabled monitor.
- Engine coolant temperature gauge, illuminated electronic, with audible warning.

- Oil temperature gauge, illuminated electronic, with audible warning.
- Fuel gauge, illuminated electronic.
- Digital display of engine hours, engine rpm, and system voltage.
- Monitor system with audible and visual warnings: engine air restriction indicator; low alternator voltage indicator; engine oil pressure indicator; hydraulic filter restriction indicator; parking brake on/off indicator with audible warning; seat belt indicator; low brake pressure; machine diagnostic information via 4-push button; LCD interface.
- Air suspension vinyl 3600 swivel seat with lumbar adjustment and armrests (fully adjustable); Tinted safety glass; Sun visor; Headliner; am/fm weather-band radio; left and right cab doors; Dome light; windshield wiper (1 front and 1 rear); tilt-steering, halogen work lights (6) 32,000 candlepower each (2 front, 2 rear, and 2 side docking); air conditioner (7.6-kw [26,000 btu/hr] output and CFC-free R134a refrigerant).

Transmission:

- Manual 4WD Transmission.
- 2WD/4WD 4 Speed forward and reverse with 4 WD engagement.

Axles: (minimum requirements)

- Static load rating
- Front: 53,400 ft-lbs. (237,500 Nm).
- Rear: 42,150 ft.-lbs. (187,500 Nm).

Dynamic Load Rating: (minumim requirements)

- Front: 21,360 ft.-lbs. (95,00 Nm).
- Rear: 16,860 ft.-lbs (75,000 Nm).

Brake System:

- 4-wheel brake system
- long life sealed brake system, self-equalizing and self-adjusting.

Hydraulic System: (minimum requirements)

- Main pump @ 2,200 rpm: 21 gpm (80 Lpm).
- Secondary pump @ 2,200 rpm: 21 gpm (80 Lpm).
- System Main Relief Setting: 3,250 psi (225 bar).
- Unloader Setting: 3,000 psi (207 bar).

Loader Dimensions: (minimum requirements)

- Loader bucket: 1.65 cu. yd. (1.2 cu. m.) 7-in-1 bucket.
- Dump clearance, @ 45°: 9'0" (2.71 m).
- Reach at full height, @ 45°: 2.9" (829 mm).
- Overall operating height: 14'2" (4.31 m).

Backhoe Dimensions: (minimum requirements)	**Deep Dig Dipper (Ret.)**	**Deep Dig Dipper (Ext.)**
• Dig depth SAE:	15'11" (4.85 m)	20'4" (6.2 m)
• Reach-ground level to swing post:	19'10" (6.03 m)	24' 0" (7.32 m)
• Operating height:	19' 8" (5.99 m)	22' 6" (6.86 m)
• Loading height SAE:	12' 4" (3.75 m)	14' 7" (4.44 m)
• Bucket rotation (speed):	194^0	194^0
• Bucket rotation (power):	163^0	163^0
• Side reach from stabilizers:	13' 5" (4.07 m)	17' 7" (5.36 m)
• Stabilizer spread:	11' 3" (3.43 m)	11' 3" (3.43 m)
• Maximum leveling angle:	15^0	15^0

Additional Requirements: (Backhoe Loader)

- Operators manual.
- Maintenance manual.
- Parts & service manual.
- Spare tire (1 ea. Front/1 ea. Rear).

AUXILARY HYDRAULIC CONTROLS FOR ATTACHMENTS LISTED BELOW: (NOTE: ATTACHMENT COSTS WILL BE INCLUDED WITH "BID PACKAGE")

Rock Drill Hydraulic Hammer: (minimum requirements)

- Max energy per blow / ft. lbs.: 850 ft. lbs.
- Required flow/GPM: 14-26 gpm.
- Operating pressure 1800 psi.
- Blows per minute: 550-1,200 bpm.
- Tool diameter (inches): 3".
- Overall length (inches): 63".
- Parts, service, and maintenance manual for above attachment.

Plate Compactor: (minimum requirements)

- Impulse force: 6,500 lbs. (3,000 kg)
- Frequency: 2,000 cpm (2,000 npm)
- Hydraulic flow: 20 gpm (75 lpm)
- Pressure: 2,200 psi (150 bar)
- Bottom plate: 24" x 34" (610 mm x 865 mm)
- Parts, service and maintenance manual for above attachment.

Mounting Hardware and Accessories:

- Mounting bracket: Quick Connect Mounting Bracket for Installation and Removal.

- Hydraulic fittings: Quick Connect Fitting for Installation and Removal.

TECHNICAL SPECIFICATIONS FOR TRAILER:

Trailer:

- The trailer assembly shall be furnished with a data plate showing the product/model number, serial number, axle and wheel rating, maximum speed and date of manufacturer. The trailer shall display a high standard of workmanship in accordance with industry standards. It should withstand all normal road shock and vibration without damage to welded or bolted connections. All materials used in the manufacturer of the trailer shall be new. Burned surfaces of flame cut materials shall be ground smooth.

Axles& Suspension:

- Shall be provided with heavy duty dual axles. To keep road-transmitted shock and vibration to a minimum, the axles shall be suspended from the trailer frame by leaf-type spring or better.

Wheels:

- Wheels, 235R75 x 17.5 or equal.

Towing & Safety Requirements:

- Trailers are to be Adjustable Pintail Hitch type complete with adjustable jack stand. The adjustable jack stand with sand shoe provided with the trailer shall have a hand-operated crank to raise or lower the front end into position for hookup to towing vehicle.

Safety Chains:

- Two safety chains of normal ½-inch high test steel with a proof test capability of 13,700 lbs. Chains shall be provided with slip hooks and safety latches.

Brakes:

- Trailer shall be supplied with a hydraulic surge brake.

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Breakaway Switch:

- In the event the trailer should break away from the towing vehicle, a breakaway switch shall activate the trailer to bring it to a complete stop; power to this switch is activated by the rear ward movement of the trailer by means of a wire cable attached to the towing vehicle.

Lights, Reflector, and Wiring:

- Six pin male plug connectors shall be provided for connection to the towing vehicle electrical system, plug must be located on the tongue of the trailer, must include license plate light and brackets.
- The following lights and reflectors shall be provided on the trailer. Two combination brake, running and turn signal red lights, one on the left and one on the right rear end of the trailer.

Electric Winch:

2,500 lbs. power winch attached and bolted on the front end of trailer.

Type of Equipment:

Year: 2018

Make: New Holland Construction (Backhoe) & Felling Trailers, Inc. (Trailer)

Model: B110B Backhoe & FT-24-2 LP Trailer

Equipment Availability: Backhoe : 250 Days, as per bid request
Trailer : 250 Days, as per bid request

GENERAL SPECIFICATION ON ITEM 2.0 (OR APPROVED EQUAL):

Unit:

- Model : Conventionnel.
- Type : full truck.
- Description : Dump 6x4-16 Cu. Yd.

Body:

- Type: End Dump.
- Length: (ft.) 16.0.
- Height: (ft.) 13.5.
- Max laden weight (lbs.) 8,500.

Restriction:

- Length: (ft.) 12.0.
- Width: (ft.) 10.2.
- Height: (ft.) 15.0.

Chassis: (minimum requirements)

- Front axle load: (lbs.) 20,000.
- Rear axle load (lbs.) 52,000.
- G.C.W. (lbs.) 72,000.

Road Condition:

- Class A (highway) 00.
- Class B (highway/mountain) 95.
- Class C (off-highway) 05.
- Class D (off-road) 00.

Maximum Grade: 6 (minimum requirements)

- Wheel base (In.) 233.
- Front axle to BOC (In.) 74.
- Cab to axle (In.) 159.
- Cab to EOF (In.) 219.

Engine & Equipment: (minimum requirements)

- ISM 524V 425@2000 410@2100 1550@1200.
- Cruise Control auto resume, gear down protection, 65 mph max vehicle speed in top gear, 65 mph max cruise speed, 1400 max PTO speed.

Transmission & Clutch:

- Clutch 7 spring 4 paddle ceramic to 1650 lb. ft.
- Manual Transmission.

Front Axle & Equipment: (minimum requirements)

- Front axle 20,000 lbs. Load Capacity Front brakes. 22,000 lbs. Braking Capacity.
- Front vented hubcaps.
- Front automatic slack adjusters.
- Front springs taper leaf 20k w/shock absorbers.

- Maintenance-free elastomer spring pin bushings.
- Dual power steering gears 20k TRW TA65.

Rear Axle & Equipment: (minimum requirements)

- Dual rear axle 52,000 lbs. Load Capacity.
- Rear axle ratio 4.56.
- Dual rear brakes 46,000-52K lbs. Brake Capacity.
- Dual rear low maintenance hub package.
- Dual rear axle automatic slack adjusters.
- Dual spring brake 3030 output.
- Dust shield: all rear axles.
- 52k & 54 in. axle space with 7.19 in. saddle height & bar pin bushing & bronze center bushing. Unladen height: 12.2 in. laden height: 11.1 in. minimum requirement.

Tires & Wheels: (minimum requirements)

- FR 425/65R22.5 20 PR.
- 44.8 in. diameter, all positions 20.7 in. SLR, On/Off highway, wide base tire. Curb protector bar.
- FR wheel" standard size rims 22.5x12.25.
- Hub pilot mount. 11,400 lb. max rating. Super single.
- FR wheel/rim quantity: 3 each.
- RR12R22.5 16PR.
- 43.4 in. diameter, a; position. 20.2 in. SLR. On/Off Highway. 25/32 tread depth.
- RR wheel: standard size rims 22.5x8.25.
- Hub pilot mount. 7,400 lb. max rating.
- RR wheel/rim quantity: 9 each.

Frame & Equipment:

- Bumper straight aluminum channel.
- Front mud flaps.
- Battery box location left hand side.
- Rear mud flaps arms fleet line FF30P.
- Steel spring loaded & painted.

Fuel Tank & Equipment: (minimum requirements)

- Fuel tank 100 US gallon 24.5 in. aluminum.
- Class 8 fuel tank with an anti-siphon devise on the filler neck.

Cab & Equipment: (minimum requirements)

- Cab: curbed glass conventional.
- Cab heater with integral defroster & AC.
- 18 in. 4-spoke steering wheel.
- Adjustable telescoping tilt steering column.
- Multi-function high display.
- Instrument package:
  Includes speedometer, tachometer, fuel gauge, engine coolant, temperature gauge, Engine oil pressure, voltmeter, Class 8 also include primary and secondary air reservoir gauges and an air application gauge, and hour meter.
- Warning light for parking brake.
- DR seat KW air cushion plus HB cloth and dual arm rest.
- Single air horn.
- Dual fixed heated mirrors 7 in. x 16 in. must include 7 ½ in.
- Convex Mirror, RH.
- AM/FM radio with speakers.

Light & Instrument: (minimum requirements)

- Dual rectangular extended life halogen headlamps.
- Five marker aerodynamic light mounted on sun visor.
- Fender mounted turn signal lights.
- Interrupter switch for marker lights.

Paint:

- Preferably White.

Additional Accessories:

- Emergency kit should consist of three (3) triangles in a plastic carrying case.
- Fire extinguisher - A, B, C rated.
- Electrical canopy & canopy assembly for rear dump bed.
- Remote operated from cab interior.
- Towing package with pintle hook C-clamp for 20-ton trailer.
- Operator's manual.
- Repair Maintenance manual.
- Service/parts maintenance manual.

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Type of Equipment:

Year: 2019

19

Ref: "AMENDED VERSION" BID AMENDMENT NO. 8

Exhibit B

Exhibit B

Projected Payment Schedule for Long Term Operating Lease & Maintenance Agreement

Item Description	Year 1	Year 2	Year 3	Year 4	Year 5	Total
4x4 Backhoe Loader (3)	$ 80,332	$ 80,332	$ 80,332	$ 80,332	$ 80,332	$ 401,660
6x4 Dump Truck 16 Cubic Yard (3)	$ 131,652	$ 131,652	$ 131,652	$ 131,652	$ 131,652	$ 658,259
Backhoe Trailer (3)	$ 20,182	$ 20,182	$ 20,182	$ 20,182	$ 20,182	$ 100,910
	$ 232,166	$ 232,166	$ 232,166	$ 232,166	$ 232,166	$ 1,160,829

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. 05-FY2019
Relative to Approval of a Two-Year Extension of the Contract with JMI Edison for the Purchase of Cationic Polymer for the Hagåtña and Northern District Wastewater Treatment Plants.

What is the project's objective and is it necessary and urgent?
The objective is to exercise the available option years for an existing supply contract for chemicals used at several of GWA's Wastewater Treatment Plants and to ensure sufficient stock is available at all times. The proposed action is necessary to insure a consistent stock of chemicals at all times in order to continue treatment of wastewater required by USEPA and specified in § II A Paragraph 5 of the 2011 Court Order.

Where is the location?
The chemicals will be used at the Hagåtña and Northern District Wastewater Treatment Plants, and also at the newly commissioned Agat-Santa Rita Wastewater Treatment Plant.

How much will it cost?
Under the two (2) year option at the negotiated price of $1.56 per pound for a total cost of Six Hundred Eighty-Six Thousand Seven Hundred Twenty Dollars ($686,720.00) plus a ten percent (10%) contingency of Sixty-Eight Thousand Six Hundred Seventy-Two Dollars ($68,672.00) which totals out to GWA's requested approval for funding on this contract of Seven Hundred Fifty-Five Thousand Three Hundred Ninety-Two Dollars ($755,392.00)

When will it be completed?
Delivery of chemicals is sixty (60) days after receipt of order, this is an ongoing contract initiated for a total of three (3) years with two (2) one (1) year options to renew.

What is the funding source?
The purchases under the proposed extended contract will be revenue (O & M) funded.

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

RESOLUTION NO. 05-FY2019

RELATIVE TO APPROVAL OF A ONE-YEAR EXTENSION OF THE CONTRACT WITH JMI-EDISON FOR THE PURCHASE OF CATIONIC POLYMER FOR THE HAGÅTÑA AND NORTHERN DISTRICT WASTEWATER TREATMENT PLANTS

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 remains under the 2011 Court Order ("CO") Projects which requires, among many other things, the operation of the Northern and Hagåtña District Wastewater Treatment Plants (WWTPs) to use Chemically Enhanced Primary Treatment as specified in § II A Paragraph 2 of the CO; and

WHEREAS, the Chemically Enhanced Primary Treatment at the Northern and Hågatña District WWTP requires the purchase of chemicals for the application of the treatment process; and

WHEREAS, on July 30, 2015, GWA filed a Petition with the Guam Public Utilities Commission ("PUC") for approval to issue a bid for chemicals for the Northern and Hågatña District WWTP facilities; and the GWA Petition was approved by the PUC on August 27, 2015; and

WHEREAS, GWA issued Bid Number 2015-10 to solicit bid proposals from experienced and responsive bidders to provide the chemicals needed to continue to operate the

Northern District WWTP and the Hågatña District WWTP in compliance with § II A Paragraph 3(a) of the CO; and

WHEREAS, there were two responsive and responsible bidders who offered chemicals meeting the requirements of IFB 2015-10 **(**see Exhibit A); and

WHEREAS, upon approval by the CCU and the PUC in early FY2016, GWA entered into a contract for Cationic Polymer with JMI-Edison containing a three (3) year initial term with a two (2) year option clause (see Exhibit A); and

WHEREAS, GWA negotiated a $1.56 per pound price (12 cent/pound increase) with JMI-Edison for it to supply Cationic Polymer for the option term which, at an estimated usage of 13,000 pounds per month, comes to Two Hundred Forty-Three Thousand Three Hundred Sixty Dollars ($243,360); and

WHEREAS, GWA estimates 5,340 pounds per month of chemical consumption for the Agat-Santa Rita Wastewater Treatment Plant for an annual amount of approximately One Hundred Thousand Dollars ($100,000.00), as such GWA seeks approval for an additional purchase of Cationic Polymer in the amount not to exceed One Hundred Thousand Dollars ($100,000.00) for each option year term as specified in IFB 2015-10; and

WHEREAS, the total amount of Cationic Polymer needed per year comes out to Three Hundred Forty-Three Thousand Three Hundred Sixty Dollars ($343,360.00); and for a two (2) year extension the amount will be Six Hundred Eighty-Six Thousand Seven Hundred Twenty Dollars ($686,720.00) plus a 10% contingency of Sixty-Eight Thousand Six Hundred Seventy-Two Dollars ($68,672.00) which totals out to GWA's requested approval for funding on this contract of Seven Hundred Fifty-Five Thousand Three Hundred Ninety-Two Dollars ($755,392.00); and

WHEREAS, GWA Management seeks CCU approval of the two (2) year contract extension with JMI-Edison, in an amount not to exceed Seven Hundred Fifty-Five Thousand Three Hundred Ninety-Two Dollars ($755,392.00) for the Cationic Polymer chemical; and

WHEREAS, GWA seeks CCU approval to Petition the PUC to approve the two (2) year contract extension with JMI-Edison, in an amount not to exceed Seven Hundred Fifty-Five Thousand Three Hundred Ninety-Two Dollars ($755,392.00); and

WHEREAS, the source of funding for the chemical purchases will be from the FY2019 GWA Wastewater Operations Budget.

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the negotiated contract option price agreed to by JMI-Edison is fair and reasonable.
3. The CCU finds that the terms of the conditions set by GWA relative to providing necessary chemicals are fair and reasonable.
4. The CCU hereby authorizes the management of GWA to exercise the two (2) each one (1) year option periods allowed in the contract (Exhibit A) with JMI-Edison at the $1.56/pound negotiated price.
5. The CCU hereby further approves the funding total not to exceed Seven Hundred Fifty-Five Thousand Three Hundred Ninety-Two Dollars ($755,392.00) for the JMI-Edison contract option to supply Cationic Polymer.
6. The CCU hereby further authorizes GWA Management to petition the PUC for approval of the JMI-Edison contract option.

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

DULY AND REGULARLY ADOPTED, this 27th day of November 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS
Chairperson

J. GEORGE BAMBA
Secretary

DRAFT

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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DRAFT

EXHIBIT A

FORMAL CONTRACT

THIS AGREEMENT is made and entered into this 20TH day of JANUARY, 2018 by and between the **GUAM WATERWORKS AUTHORITY** ("GWA"), whose business address is: Gloria B. Nelson Public Services Building, 688 Route 15 Mangilao, Guam 96913, and **Johndel International Inc., DBA as JMI-EDISON, ("Bidder")**, whose mailing address is: 125 N. Marine Corps Drive, Tamuning, GU 96931 licensed to conduct business on Guam and having Guam business license No. 1603921.

WITNESSETH, that whereas, GWA intends to purchase cationic polymer for the purpose of using at GWA's Northern District and Hågatña Wastewater Treatment Plants to ensure regulatory compliance as identified in GWA Bid No. 2015-10.

NOW THEREFORE, GWA and the Bidder for the considerations hereinafter set forth herein and in other documents associated with the performance hereunder. agree as follows:

SECTION 1. THE BIDDER AGREES:

To provide cationic polymer manufactured by Veolia Water Treatment Technologies as specified in GWA IFB No. 2015-10 at a cost to GWA of $1.45 cents per pound CIF delivered pursuant to the bid on an "as-needed basis." Bidder agrees to maintain all time all licenses, labor, insurance, material, equipment, tools and services necessary to perform and comply with this Contract and the Contract Documents as defined in Section 3 herein. Bidder also understands that it is responsible for all taxes and fees which may be due relative to payment or performance hereunder (including but not limited to, all employee, corporate and gross receipt taxes). GWA reserves the right to amend this Agreement or request a change order, but the right is subject to the mutual agreement of both parties and all amendments or change orders shall be in writing signed by both parties.

(a) CONTRACT TIME: The Bidder agrees to commence work under this contract upon written notice to proceed and to provide the goods and services at the price specified above for a period of three years (3) from the date of the Notice to Proceed and as specified in the Bid Documents relative to the time, place and manner provided in the Bid Documents (as amended). Bidder agrees by placing their signature hereto that they have been placed on notice that the provision of the goods and services hereunder is necessary to protect the public health and that time is always of the essence.

(b) The Bidder understands that this procurement was not an "all or nothing bid" and that GWA could award a portion of the work called for under the bid to another party, and that in this case, GWA has done so.

(c) Bidder further understands that all the work called for under this bid is subject to the requirements of the Guam Public Utility Commission's Contract Review Protocol, and while GWA has secured approval for the initial three (3) year contract term, the additional two (2) one (1) year term extensions are subject to further approval from the Guam Public Utilities Commission as a condition precedent to work being performed under said extensions.

(d) SUB-CONTRACTORS: The Bidder agrees to bind every sub-contractor to the terms of the Contract Documents. Bidder further agrees that no sub-contractor Bidder may be allowed to perform in any fashion whatsoever under this contract until such time as the express written approval of GWA is obtained. The Contract Documents shall not be construed as creating any contractual relation between a sub-contractor and the Guam Waterworks Authority.

(e) Bidder further understands that the price specified in this section shall remain fixed for the initial three (3) year term regardless of the amount of chemicals ordered by GWA.

SECTION 2. GWA AGREES:

To pay, and the Bidder agrees to accept in full payment for the performance of this Contract, for cationic polymer manufactured by Veolia Water Treatment Technologies as specified in GWA IFB No. 2015-10 at a cost to GWA of $1.45 per pound CIF delivered pursuant to the bid on an "as-needed basis."

Any adjustment in contract price pursuant to clauses in this contract shall be made in one or more of the following ways:

(a) by agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;

(b) by unit prices specified in the contract or subsequently agreed upon;

(c) by the costs attributable to the event or situation covered by the clause, plus appropriate profit or fee, all as specified in the contract or subsequently agreed upon;

(d) in such other manner as the parties may mutually agree; or

(e) in the absence of an agreement between the parties, by a unilateral determination by the GWA General Manager of costs attributable to the event or situation covered by the clause, plus appropriate profit or fee, all as computed by the GWA General Manager in accordance with generally accepted accounting principles and applicable sections under Chapter 7 (Cost Principles) of the Guam Procurement Regulations and subject to the provisions under Title 5, Chapter 5 of the Guam Code Annotated (Legal and Contractual Remedies).

For the purposes of this contract, no price adjustment shall be made unless the vendor can prove that their cost for the chemical specified in this bid has increased more than 50%.

For any request for a price adjustment, the Bidder shall submit cost or pricing data for any price adjustments subject to the provisions of 2 G.A.R. § 3118 of the Guam Procurement Regulations. Information that may be required under this provision include, but is not limited to, invoices from the vendor's supplier for goods, proof of payment for such goods from the supplier or other proof as GWA may require which proves that the price has risen substantially enough to warrant a price modification.

SECTION 3. CONTRACT DOCUMENTS:

It is hereby mutually agreed that the following list of instruments, plans, specifications and documents which are attached hereto, bound herewith or incorporated herein by reference shall constitute the Contract Documents, all of which are made a part hereof, and collectively evidence and constitute the Contract between the parties, hereto, and they are as fully a part of this Agreement as if they were set out verbatim and in full herein, and are designated as follows:

a. Invitation to Bid
b. Instructions to Bidders
c. Bid
d. Form of Non-Collision Affidavit
e. Bid Bond
f. Certification of Bidders Regarding Equal Employment Opportunity
g. Formal Contract (which shall control in the event of conflict between this and any other contract or bid document)
h. Performance Bond
i. Payment Bond
j. General Provisions
k. Special Provisions
l. Technical Specifications
m. Plans
n. Addenda/Amendments
o. Answers to Questions (if GWA determines they are applicable).

SECTION 4. LIQUIDATED DAMAGES:

The Bidder further agrees to pay to GWA the amounts stated in the bid (or the minimum specified in Guam law) for failing, neglecting or refusing to complete the work within the time herein specified and said sum shall be paid for each consecutive calendar day therefore that the Bidder shall be in default after the time stipulated in the Contract for completing the work, ready for use and/or operations. Sundays and legal holidays will be excluded in determining the number of days in default.

SECTION 5. COVENANT AGAINST CONTINGENT FEES:

The Bidder warrants that he has not employed any person to solicit or secure this contract upon any agreement for a commission, percentage, brokerage, or contingent fee. Breach of this warrant shall give GWA the right to terminate the contract, or at its direction, deduct from the contract price or consideration the amount of such commission, percentage, brokerage or contingent fee. This warranty shall not apply to commission's payable by Contractors upon contracts or sales secured or made through bona fide established commercial or selling agencies maintained by the Bidder for the purpose of securing business.

SECTION 6. OTHER CONTRACTS:

GWA may award other contracts for additional work, and the Bidder shall fully cooperate with such other contractors and carefully fit his own work to that provided under other contracts as

may be directed by the Contracting Officer. The Bidder shall not commit or permit any act which will interfere with the performance of work by any other contractor.

SECTION 7. DISPUTES:

Except as otherwise specifically provided in this contract, all disputes concerning questions of fact arising under this contract shall be decided by the GWA General Manager whose decision shall be final and conclusive upon the parties thereto. In the meantime, the Bidder shall diligently proceed with the work as directed. However, the final decision of the GWA General Manager is appealable to the Guam Public Auditor as provided under 5 G.C.A. § 5427(e).

SECTION 8. CONTRACT BINDING:

It is agreed that this Contract and all the Covenants hereof shall insure to the benefit of and binding upon GWA and the Bidder respectively and his parties, successors, assignees and legal representative. Neither GWA nor the Bidder shall have the right to assign, transfer or sublet his interests or obligations hereunder without written consent of the other party.

It is hereby mutually agreed by and between the parties hereto that no mechanic, contractor, subcontractor, material man or other person can or will contract for or in any other manner have or acquire any lien upon the binding or works covered by this contract, or the land upon which the same is situated.

SECTION 9. GWA NOT LIABLE:

A. GWA, its officers, agents, employees and governing board assumes no liability for any accident or injury that may occur to the Contractor, Contractor's agents, employees, or to Contractor's property while on the job or otherwise en route to or from the job during any travel required by the terms of this agreement.

B. GWA, its officers, agents, employees and governing board shall not be liable to Bidder for any work performed by the Bidder prior to the written and signed approval of this Contract by the General Manager for GWA and the Bidder hereby expressly waives any and all claims for service performed in expectation of this agreement prior to its signature of the General Manager.

SECTION 10. NOTICES:

All notices between the parties shall be in writing and shall be deemed served when personally delivered or when deposited in the mail, registered or certified, first-class postage prepaid, addressed as follows:

To: **GUAM WATERWORKS AUTHORITY**

Greg P. Cruz
Interim General Manager
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, 96913

To: **BIDDER**

Eduardo R. Ilao
President, JMI-Edison
125 North Marine Corps Drive
Tamuning, GU 96913
Tel: 649-5444
Fax: 649-5685

SECTION 11. TERMINATION:

Section 11.1 – Termination For Default:

(1) Default. If the Bidder refuses or fails to perform any of the provisions of this contract with such diligence as will ensure its completion within the time specified in this contract, or any extension thereof, otherwise fails to timely satisfy the contract provisions, or commits any other substantial breach of this contract, GWA may notify the Bidder in writing of the delay or non-performance and if not cured in five (5) working days or any longer time specified in writing by the GWA, GWA may terminate the Contractor's right to proceed with the contract or such part of the contract as to which there has been delay or a failure to properly perform. In the event of termination in whole or in part the GWA may procure similar services in a manner and upon terms deemed appropriate by the GWA. The Bidder shall continue performance of the contract to the extent it is not terminated and shall be liable for excess costs incurred in procuring similar services.

(2) Contractor's Duties. Notwithstanding termination of the contract and subject to any directions from the GWA, the Bidder shall take timely, reasonable, and necessary action to protect and preserve property in the possession of the Bidder in which GWA has an interest.

(3) Compensation. Payment for completed services delivered and accepted by the government and GWA shall be at the contract price. GWA may withhold from amounts due the Bidder such sums as the GWA deems to be necessary to protect GWA against loss because of outstanding liens or claims of former lien holders and to reimburse the GWA for the excess costs incurred in procuring similar goods and services (including the provision of these goods and services by GWA personnel). In the event that the Bidder fails to complete the work called for in the bid, fails to provide the goods or services in the allotted time, then Bidder shall pay to GWA ¼ of 1% of the total bid price per day as liquidated damages for the non-performance as specified by the Guam Code Annotated. The liquidated damages herein are not a penalty, but rather a reasonable estimate by GWA of the loss it would suffer as a result of non-performance.

(4) Excuse for Nonperformance or Delayed Performance. Except with respect to defaults of sub-contractor(s) of Contractor, the Bidder shall not be in default by reason of any failure in performance of this contract in accordance with its terms (including any failure by the Bidder to make progress in the prosecution of the work hereunder which endangers such performance) if the Bidder has notified the GWA within fifteen (15) days after the cause of the delay and the failure arises out of causes such as: acts of God; acts of the public enemy; fires; floods; epidemics; quarantine restrictions; strikes or other labor disputes; freight embargoes; or

unusually severe weather. If the failure to perform or to make progress due to such causes similar to those set forth above, the Bidder shall not be deemed to be in default, unless the services to be furnished by the Bidder (or sub-contractor) were reasonably obtainable from other sources in sufficient time to permit the Bidder to meet the contract requirements. Failure of the Bidder (or sub-contractor) to perform for reasons other than cited above shall constitute a default of the Bidder unless cured by Bidder with a reasonable time. Upon request of the Contractor, GWA shall ascertain the facts and extent of such failure, and, if GWA determines that any failure to perform was occasioned by any one or more of the excusable causes, and that, but for the excusable cause, the Contractor's progress and performance would have met the terms of the contract, the delivery schedule shall be revised accordingly, subject to the rights of the GWA and the government of Guam under the laws of Guam.

(5) Erroneous Termination for Default. If, after notice of termination of the Contractor's right to proceed under the provisions of this clause, it is determined for any reason that the Bidder was not in default under the provisions of this clause, or that the delay was excusable under the provisions of Paragraph (4) (Excuse for Nonperformance or Delayed Performance) of this clause, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to Subsection C, below.

(6) Additional Rights and Remedies. The rights and remedies provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

Section 11.2 – Termination For Convenience:

(1) Termination. GWA may, when the interest of the government so requires, terminate this contract in whole or in part, for the convenience of the government or GWA (including the provision of services by any sub-bidder of the Contractor). GWA shall give 30 days advance written notice of the termination to the Bidder specifying the part of the contract terminated and when termination becomes effective.

(2) Contractor's Obligations. The Bidder shall incur no further obligations in connection with the terminated work (except in the case of Subcontractors where the Bidder is solely liable to GWA for their acts and/or non-performance or breach under this agreement) and on the date set in the notice of termination the Bidder will stop work to the extent specified. The Bidder shall also terminate outstanding orders and subcontracts as they relate to the terminated work. The Bidder shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated work. GWA may direct the Bidder to assign the Contractor's right, title, and interest under terminated orders or subcontracts to GWA. The Bidder must still complete the work not terminated by the notice of termination and may incur obligations as are necessary to do so.

(3) Right to Work Product. Upon termination of the contract for the convenience of the government or GWA or for any other reason, Bidder shall transfer title and deliver to GWA all documents and reports, plans, drawings, information and other material produced by Bidder or any of its sub-contractors in connection with the performance of this contract. The Bidder shall protect and preserve property in its possession or in the possession of any of its sub-contractors in which the GWA or the Government of Guam has an interest.

(4) Compensation.

(a) The Bidder shall submit a termination claim specifying the amount due because of the termination for convenience together with cost or pricing data to the extent required by § 3118 (Cost or Pricing Data) of the Guam Procurement Regulations bearing on such claim. If the Bidder fails to file a termination claim within one year from the effective date of termination, GWA may pay the Contractor, if at all, an amount set in accordance with Subparagraph (c) of this Paragraph.

(b) GWA and the Bidder may agree to a settlement provided the Bidder has filed a termination claim supported by cost or pricing data to the extent required by § 3118 (Cost or Pricing Data) of the Guam Procurement Regulations and that the settlement does not exceed the total contract price plus settlement costs reduced by payments previously made by the GWA and the contract price of the work not terminated.

(c) Absent complete agreement under Subparagraph (2) of this Paragraph, GWA shall pay the Bidder the following amounts, provided payments agreed to under Subparagraph (2) shall not duplicate payments under this Subparagraph:

(i) contract prices for services accepted under the contract;

(ii) costs incurred in preparing to perform and performing the terminated portion of the work plus a fair and reasonable profit on such portion of the work (such profit shall not include anticipatory profit or consequential damages) less amounts paid or to be paid for accepted supplies or services; provided, however, that if it appears that the Bidder would have sustained a loss if the entire contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss;

(iii) costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Subparagraph (b) of this clause;

(iv) the reasonable settlement costs of the Bidder including accounting, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the contract for the termination and settlement of subcontracts hereunder, together with reasonable storage, transportation, and other costs incurred in connection with the protection or disposition of property allocable to the terminated portion of this contract. The total sum to be paid the Bidder under this Subparagraph shall not exceed the total contract price plus the reasonable settlement costs of the Bidder reduced by the amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under Subparagraph (b) of this Paragraph, and the contract price of work not terminated.

(d) Cost claimed, agreed to, or established under Subparagraph (b) and (c) of this Paragraph shall be in accordance with Chapter 7 (Cost Principles) of the Guam Procurement Regulations.

SECTION 12. SEVERABLE PROVISIONS:

If any provision of this agreement shall be deemed by a court of competent jurisdiction to be invalid, then such provision shall be deemed stricken from the agreement and the agreement

shall be enforced according to its valid and subsisting terms and provisions. The terms of this Contract shall control in the event of any conflict between this Contract and any other document incorporated or referenced herein.

SECTION 13. GOVERNING LAW AND VENUE:

The validity of this agreement, as well as the rights and duties of the parties to this agreement, shall be governed by the laws of Guam. Moreover, any and all actions governing this agreement shall be brought in the Superior Court of Guam or the Guam District Court if applicable.

SECTION 14. OWNERSHIP OF DOCUMENTS:

All briefs, memoranda and other incidental Bidder work or materials furnished hereunder shall be and remain the property of GWA including all publication rights and copyright interests, and may be used by GWA without any additional cost to GWA.

SECTION 15. INDEMNITY:

Bidder agrees to save and hold harmless GWA, its board members, officers, agents, representatives, successors and assigns and other governmental agencies from any and all suits or actions of every nature and kind, which may be brought for or on account of any injury, death, or damage arising or growing out of the acts or omissions of the Contractor, Contractor's officers, agents (including subcontractors), servants or employees under this Agreement.

SECTION 16. GENERAL COMPLIANCE WITH LAWS:

The Bidder agrees that Bidder is to comply with all Federal and territorial laws, rules, regulations and ordinances applicable to the work being performed hereunder. Bidder shall attach a copy of appropriate business license or an affidavit executed under penalty of perjury that indicates that Bidder is exempt under Guam law (must include legal citations proving exemption).

SECTION 17. ACCESS TO RECORDS AND OTHER REVIEW:

The Contractor, including his subcontractors, if any, shall maintain copies of all books, documents, papers, accounting records and other evidence pertaining to costs incurred and to make such materials available at their respective offices at all reasonable times during the contract period and for three (3) years from the date of the final payment under the contract, for inspection by the Guam Waterworks Authority. All originals of any documents related to this Contract shall be provided to GWA as soon as possible, but not later than one day prior to the conclusion of this Agreement. Each subcontract by Bidder pursuant to this agreement shall include a provision containing the conditions of this Section.

SECTION 18. SCOPE OF AGREEMENT.

This Agreement supersedes any and all other Agreements, either oral or in writing, between the parties hereto with respect to retaining the services of Bidder by the GWA and contains all of the covenants and terms between the parties with respect to such this project. Each party to this Agreement acknowledges that no representation, inducements, promises or agreements, orally or

otherwise, have been made by any party, or anyone acting on behalf of any party which are not embodied herein, and that no other agreement, statement, or promise not contained in this Agreement and addenda will be effective only if it is in writing signed by the party to be charged. For the purposes of this paragraph and of the entire agreement, the signature of the General Manager for the Guam Waterworks Authority (or his designee) is the only signature that will bind the GWA.

SECTION 19. RESPONSIBILITY OF CONTRACTOR.

In addition to the other requirements set forth in the bid and this Contract, the Bidder shall be responsible for the professional and technical accuracy of all work and goods furnished under this contract. The Bidder shall, without additional cost to GWA, correct or revise all errors or deficiencies in his/her work.

GWA's review, approval, acceptance of, and payment for goods, fee, or for services required under this contract, shall not be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the Contractor's failure of performance of this contract and the Bidder shall be and remain liable to the GWA for all costs of any kind which may be incurred by the GWA as a result of the Contractor's negligent or erroneous performance of any of the services performed under this contract. GWA shall continue to remain liable for its own negligent acts and those of its employees and its failure to perform as provided under this agreement.

SECTION 20. CHANGE ORDERS.

By written order, at any time, and without notice to Contractor's surety, GWA may, subject to all appropriate adjustments, make changes within the general scope of work of this Contract in any one or more of the following:

1. Drawings, designs or specifications, if the supplies or services to be furnished are to be specifically manufactured for GWA in accordance therewith;
2. Method of shipping or packing; or
3. Place of delivery.

If any such change order increases or decreases the contractor's cost of, or the time required for performance of any part of the work under this contract, whether or not changed by the order, an adjustment shall be made and the contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with the Price Adjustment Clause of this Contract.

Failure of the parties to agree to an adjustment shall not excuse the Bidder from proceeding with the Contract as changed, provided that GWA promptly and duly make such provisional adjustments in payment or time for performance as may be reasonable. By proceeding with the work, the Bidder shall not be deemed to have prejudiced any claim for additional compensation, or an extension of time for completion.

Within 30 days after receipt of a written change order, unless such period is extended by GWA in writing, the Bidder shall file notice of intent to assert a claim for an adjustment. Later

notification shall not bar the contractor's claim unless GWA is prejudiced by the delay in notification. No claim by the Bidder for an adjustment hereunder shall be allowed if notice is not given prior to final payment under this Contract.

In the absence of such a change order, nothing in this clause shall be deemed to restrict the Contractor's right to pursue a claim arising under the contract if pursued in accordance with the clause entitled "Claims Based on Acts or Omissions by GWA" of this Contract.

SECTION 21. STOP WORK ORDERS.

GWA may by written order to the Contractor, at any time, and without notice to any surety, require the Bidder to stop all or any part of the work called for in the Contract. This order shall be for a specified period not exceeding ninety (90) days after the order is received by the Contractor, unless the parties agree to any longer period. Upon receipt of the order, the Bidder shall comply with its terms and take all reasonable steps to minimize the occurrence of costs allocable to the work covered by the order during the period of work stoppage. Before the stop work order expires, or within any further period to which the parties have agreed, GWA shall either cancel the work order or terminate the work covered by the order as provided under the Termination for Default or Termination for Convenience Clauses contained in this contract.

If a stop work order issued under this clause is cancelled at any time during the period specified in the order, of the period of the order or any extension thereof expires, the Bidder shall have the right to resume work. An appropriate adjustment shall be made to the delivery schedule or Bidder only if: (a) the stop work order results in an increase in the time required for performance or the contractor's cost; and (b) if the Bidder asserts a claim for such an adjustment within thirty (30) days after the end of the period of work stoppage; provided that, if GWA decides that the facts justify such action, any such claim asserted may be received and acted upon at any time prior to final payment under this Contract. If a stop work order is not cancelled and the work covered by the order is terminated for default or convenience, the reasonable costs resulting from the stop work order shall be allowed pursuant to the price adjustment clause of this Contract.

SECTION 22. CLAIMS BASED ON ACTS OR OMISSIONS BY GWA.

If any action or omission on the part of GWA requiring performance changes within the scope of the contract constitutes the basis for a claim by the Bidder for additional compensation, damages, or an extension of time for completion, the Bidder shall continue with performance of the contract in compliance with the directions or orders of GWA, but by so doing, the Bidder shall not be deemed to have prejudiced any claim for additional compensation, damages, or an extension of time for completion; provided:

(a) the Bidder shall have given written notice to GWA:

(i) prior to the commencement of the work involved, if at that time the Bidder knows of the occurrence of such action or omission;

(ii) within 30 days after the Bidder knows of the occurrence of such action or omission, if the Bidder did not have such knowledge prior to the commencement of the work; or

(iii) within such further time as may be allowed by the Procurement Officer in writing.

This notice shall state that the Bidder regards the act or omission as a reason which may entitle the Bidder to additional compensation, damages, or an extension of time. The Procurement Officer or designee of such officer, upon receipt of such notice, may rescind such action, remedy such omission, or take such other steps as may be deemed advisable in the discretion of the Procurement Officer or designee of such officer.

(b) the notice required by Subparagraph (a) of this Paragraph describes as clearly as practicable at the time the reasons why the Bidder believes that additional compensation, damages, or an extension of time may be remedies to which the Bidder is entitled; and

(c) the Bidder maintains and, upon request, makes available to the Procurement Officer within a reasonable time, detailed records to the extent practicable, of the claimed additional costs or basis for an extension of time in connection with such changes.

Nothing herein contained, however, shall excuse the Bidder from compliance with any rules of law precluding any GWA official or its Contractors from acting in collusion or bad faith in issuing or performing change orders which are clearly not within the scope of the contract.

Any adjustment in the contract price made pursuant to this clause shall be determined in accordance with the Price Adjustment Clause of this contract.

SECTION 23. EFFECTIVE DATE OF THIS CONTRACT.

This agreement shall take effect upon the date it is signed by both the General Manger and the Bidder and the date of this agreement shall be when the General Manager affixes his signature.

GUAM WATERWORKS AUTHORITY:

Miguel Bordallo
General Manager

Date: 1·20·16

CONTRACTOR:

Eduardo, R Ilao
Authorized Representative

Date: 12/31/2015

Certified Funds Available:

Certifying Officer
Guam Waterworks Authority

Date: 1·8·16 01/05/16

Approved as to Form and Legality:

Samuel J. Taylor
GWA Legal Counsel

Date: 1/20/16

Contract Amount: $600,565.35

Amount Certified: $185,996.70 FY16 only

Source of funding: Revenue Funded

Certifying Officer: Greg P. Cruz, CFO

Date:

CORPORATE OR PARTNERSHIP CERTIFICATION
AS TO AUTHORIZATION TO BIND

I, _____ certify that I am the Secretary of the corporation or managing partner named as Bidder herein; that **Eduardo R. Ilao** who signed this contract on behalf of the Contractor, was then **President** of said corporation/partnership by authority of said corporation of its governing body, and is within the scope of its corporate/partnership powers to bind said corporation/partnership to the terms and conditions of this Contract.

Signed: _____
Corporate Secretary

Date: 12/31/15

(CORPORATE/PARTNERSHIP SEAL)

* * * * * * * **END OF CONTRACT** * * * * *

1/20/16

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. 06-FY2019
Relative to Approval of a Two-Year Extension of the Contract with Total Chemical Resources Inc. for the Purchase of Anionic Polymer and Aluminum Chlorohydrate for the Hagåtña and Northern District Wastewater Treatment Plants.

What is the project's objective and is it necessary and urgent?
The objective is to exercise the available option years for an existing supply contract for chemicals used at the Hagåtña and Northern District Wastewater Treatment Plants and to ensure sufficient stock is available at all times. The proposed action is necessary to insure a consistent stock of chemicals at all times in order to continue treatment of wastewater required by USEPA and specified in § II A Paragraph 5 of the 2011 Court Order.

Where is the location?
Hagåtña and Northern District Wastewater Treatment Plants.

How much will it cost?
GWA negotiated a $1.98 price per pound for Anionic Polymer with an estimated usage of 72,096 pounds per month at an annual cost of $1,713,000.96 and $1.25 price per pound for Aluminum Chlorohydrate with an estimated usage of 97,146 pounds per month at an annual cost of $1,457,190.00 for a total cost of $6,340,381.92 under the two (2) year contract option.

GWA management is also seeking a 10% contingency in the amount of $634,038.19 to the 6,381,000.00, which would then make the total authorized funding to be $6,974,420.11.

When will it be completed?
Delivery of chemicals is sixty (60) days after receipt of order, this is an ongoing contract initiated for a total of three (3) years with two (2) one (1) year options to renew.

What is the funding source?
The purchases under the proposed extended contract will be revenue (O & M) funded.

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

RESOLUTION NO. 06-FY2019

RELATIVE TO APPROVAL OF A TWO-YEAR EXTENSION OF THE CONTRACT WITH TOTAL CHEMICAL RESOURCES INC. FOR THE PURCHASE OF ANIONIC POLYMER AND ALUMINUM CHLOROHYDRATE (ACH) FOR THE HÅGATÑA AND NORTHERN DISTRICT WASTEWATER TREATMENT PLANTS

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 remains under the 2011 Court Order ("CO") Projects which requires, among many other things, the operation of the Northern and Hagåtña District Wastewater Treatment Plants (WWTPs) to use Chemically Enhanced Primary Treatment as specified in § II A Paragraph 2 of the CO; and

WHEREAS, the Chemically Enhanced Primary Treatment at the Northern and Hågatña District WWTP requires the purchase of chemicals for the application of the treatment process; and

WHEREAS, on July 30, 2015, GWA filed a Petition with the Guam Public Utilities Commission ("PUC") for approval to issue a bid for chemicals for the Northern and Hågatña District WWTP facilities; and the GWA Petition was approved by the PUC on August 27, 2015; and

DRAFT

WHEREAS, GWA issued Bid Number 2015-10 to solicit bid proposals from experienced and responsive bidders to provide the chemicals needed to continue to operate the Northern District WWTP and the Hågatña District WWTP in compliance with § II A Paragraph 3(a) of the CO; and

WHEREAS, there were two responsive and responsible bidders who offered chemicals meeting the requirements of IFB 2015-10 **(**see Exhibit A); and

WHEREAS, upon approval by the CCU and the PUC in early FY2016, GWA entered into a contract for Anionic Polymer and Aluminum Chlorohydrate (ACH) with Total Chemical Resources, Inc. ("Total Chemicals") containing a three (3) year initial term with a two (2) year option clause (see Exhibit A); and

WHEREAS, GWA negotiated a $1.98 per pound for Anionic Polymer at an estimated usage of 72,096 pounds per month at an annual cost of One Million Seven Hundred Thirteen Thousand and 96/100 Dollars ($1,713,000.96) and for Aluminum Chlorohydrate (ACH) at $1.25 per pound at an estimated usage of 97,146 pounds per month at an annual cost of One Million Four Hundred Fifty-Seven Thousand One Hundred Ninety Dollars ($1,457,190.00) for a one year term with a grand total of Three Million One Hundred Seventy Thousand One Hundred Ninety and 96/100 Dollars ($3,170,190.96) to supply both Anionic Polymer and Aluminum Chlorohydrate (ACH) for the Northern and Hagatna District Wastewater Treatment Plants as specified in IFB 2015-10; and

WHEREAS, GWA Management seeks CCU approval of a two (2) year contract extension with Total Chemical, in an amount not to exceed Six Million Three Hundred Forty Thousand Three Hundred Eighty-One and 92/100 Dollars ($6,340,381.92) for the Anionic Polymer and Aluminum Chlorohydrate (ACH) chemical, with a 10% contingency of Six Hundred Thirty-Four Thousand Thirty-Eight and 19/100 Dollars ($634,038.19), for a total funding amount of Six Million Nine Hundred Seventy-Four Thousand Four Hundred Twenty and 11/100 Dollars ($6,974,420.11); and

WHEREAS, GWA seeks CCU approval to Petition the PUC to approve the two (2) year Contract option plus a 10% contingency in the total amount not to exceed Six Million Nine Hundred Seventy-Four Thousand Four Hundred Twenty and 11/100 Dollars ($6,974,420.11); and

WHEREAS, the source of funding for the chemical purchases will be from the FY2019 GWA Wastewater Operations Budget.

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the negotiated contract option price agreed to by Total Chemical Resources Inc. is fair and reasonable.
3. The CCU finds that the terms of the conditions set by GWA relative to providing necessary chemicals are fair and reasonable.
4. The CCU hereby authorizes the management of GWA to exercise the one (1) year option period allowed in the contract with Total Chemical at the negotiated price.
5. The CCU hereby further approves the funding total of Six Million Nine Hundred Seventy-Four Thousand Four Hundred Twenty and 11/100 Dollars ($6,974,420.11) for the Total Chemical contract option to supply Anionic Polymer and Aluminum Chlorohydrate (ACH).
6. The CCU hereby further authorizes GWA Management to petition the PUC for approval of the Total Chemical contract option.

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

DULY AND REGULARLY ADOPTED, this 27th day of November 2018.

Certified by: Attested by:

_____ _____

JOSEPH T. DUENAS
Chairperson

J. GEORGE BAMBA
Secretary

DRAFT

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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DRAFT

EXHIBIT A

TRACKING NO. FY 2016-00003

FORMAL CONTRACT

THIS AGREEMENT is made and entered into this 20th day of JANUARY, 2016 by and between the **GUAM WATERWORKS AUTHORITY** ("GWA"), whose business address is: Gloria B. Nelson Public Services Building, 688 Route 15 Mangilao, Guam 96913, and **TOTAL CHEMICAL RESOURCES, INC., ("Bidder"),** whose mailing address is: PO Box 20730, Barrigada, GU 96921 licensed to conduct business on Guam and having Guam business license No. 1608013.

WITNESSETH, that whereas, GWA intends to purchase inorganic coagulant ("ACH") and anionic polymer for the purpose of using at GWA's Northern District and Hågatña Wastewater Treatment Plants to ensure regulatory compliance as identified in GWA Bid No. 2015-10.

NOW THEREFORE, GWA and the Bidder for the considerations hereinafter set forth herein and in other documents associated with the performance hereunder, agree as follows:

SECTION 1. THE BIDDER AGREES:

To provide ACH manufactured by Gulbrandsen Technologies (India) Pvt Inc. at a cost to GWA of $1.06 cents per pound and anionic polymer manufactured by NALCO (an Ecolab Company) t a cost to GWA of $1.40 cents per pound as specified in GWA IFB No. 2015-10 at CIF delivered pursuant to the bid on an "as-needed basis." Bidder agrees to maintain all time all licenses, labor, insurance, material, equipment, tools and services necessary to perform and comply with this Contract and the Contract Documents as defined in Section 3 herein. Bidder also understands that it is responsible for all taxes and fees which may be due relative to payment or performance hereunder (including but not limited to, all employee, corporate and gross receipt taxes). GWA reserves the right to amend this Agreement or request a change order, but the right is subject to the mutual agreement of both parties and all amendments or change orders shall be in writing signed by both parties.

(a) CONTRACT TIME: The Bidder agrees to commence work under this contract upon written notice to proceed and to provide the goods and services at the price specified above for a period of three years (3) from the date of the Notice to Proceed and as specified in the Bid Documents relative to the time, place and manner provided in the Bid Documents (as amended). Bidder agrees by placing their signature hereto that they have been placed on notice that the provision of the goods and services hereunder is necessary to protect the public health and that time is always of the essence.

(b) The Bidder understands that this procurement was not an "all or nothing bid" and that GWA could award a portion of the work called for under the bid to another party, and that in this case, GWA has done so.

(c) Bidder further understands that all the work called for under this bid is subject to the requirements of the Guam Public Utility Commission's Contract Review Protocol, and while GWA has secured approval for the initial three (3) year contract term, the additional two (2) one (1) year term extensions are subject to further approval from the Guam Public Utilities Commission as a condition precedent to work being performed under said extensions.

1-20-16

(d) SUB-CONTRACTORS: The Bidder agrees to bind every sub-contractor to the terms of the Contract Documents. Bidder further agrees that no sub-contractor Bidder may be allowed to perform in any fashion whatsoever under this contract until such time as the express written approval of GWA is obtained. The Contract Documents shall not be construed as creating any contractual relation between a sub-contractor and the Guam Waterworks Authority.

(e) Bidder further understands that the price specified in this section shall remain fixed for the initial three (3) year term regardless of the amount of chemicals ordered by GWA.

SECTION 2. GWA AGREES:

To pay, and the Bidder agrees to accept in full payment for the performance of this Contract, ACH manufactured by Gulbrandsen Technologies (India) Pvt Inc. at a cost to GWA of $1.06 cents per pound and anionic polymer manufactured by NALCO (an Ecolab Company) at a cost to GWA of $1.40 cents per pound CIF delivered pursuant to the bid on an "as-needed basis."

Any adjustment in contract price pursuant to clauses in this contract shall be made in one or more of the following ways:

(a) by agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;

(b) by unit prices specified in the contract or subsequently agreed upon;

(c) by the costs attributable to the event or situation covered by the clause, plus appropriate profit or fee, all as specified in the contract or subsequently agreed upon;

(d) in such other manner as the parties may mutually agree; or

(e) in the absence of an agreement between the parties, by a unilateral determination by the GWA General Manager of costs attributable to the event or situation covered by the clause, plus appropriate profit or fee, all as computed by the GWA General Manager in accordance with generally accepted accounting principles and applicable sections under Chapter 7 (Cost Principles) of the Guam Procurement Regulations and subject to the provisions under Title 5, Chapter 5 of the Guam Code Annotated (Legal and Contractual Remedies).

For the purposes of this contract, no price adjustment shall be made unless the vendor can prove that their cost for the chemical specified in this bid has increased more than 50%.

For any request for a price adjustment, the Bidder shall submit cost or pricing data for any price adjustments subject to the provisions of 2 G.A.R. § 3118 of the Guam Procurement Regulations. Information that may be required under this provision include, but is not limited to, invoices from the vendor's supplier for goods, proof of payment for such goods from the supplier or other proof as GWA may require which proves that the price has risen substantially enough to warrant a price modification.

SECTION 3. CONTRACT DOCUMENTS:

It is hereby mutually agreed that the following list of instruments, plans, specifications and documents which are attached hereto, bound herewith or incorporated herein by reference shall constitute the Contract Documents, all of which are made a part hereof, and collectively evidence and constitute the Contract between the parties, hereto, and they are as fully a part of this Agreement as if they were set out verbatim and in full herein, and are designated as follows:

a. Invitation to Bid
b. Instructions to Bidders
c. Bid
d. Form of Non-Collision Affidavit
e. Bid Bond
f. Certification of Bidders Regarding Equal Employment Opportunity
g. Formal Contract (which shall control in the event of conflict between this and any other contract or bid document)
h. Performance Bond
i. Payment Bond
j. General Provisions
k. Special Provisions
l. Technical Specifications
m. Plans
n. Addenda/Amendments
o. Answers to Questions (if GWA determines they are applicable).

SECTION 4. LIQUIDATED DAMAGES:

The Bidder further agrees to pay to GWA the amounts stated in the bid (or the minimum specified in Guam law) for failing, neglecting or refusing to complete the work within the time herein specified and said sum shall be paid for each consecutive calendar day therefore that the Bidder shall be in default after the time stipulated in the Contract for completing the work, ready for use and/or operations. Sundays and legal holidays will be excluded in determining the number of days in default.

SECTION 5. COVENANT AGAINST CONTINGENT FEES:

The Bidder warrants that he has not employed any person to solicit or secure this contract upon any agreement for a commission, percentage, brokerage, or contingent fee. Breach of this warrant shall give GWA the right to terminate the contract, or at its direction, deduct from the contract price or consideration the amount of such commission, percentage, brokerage or contingent fee. This warranty shall not apply to commission's payable by Contractors upon contracts or sales secured or made through bona fide established commercial or selling agencies maintained by the Bidder for the purpose of securing business.

SECTION 6. OTHER CONTRACTS:

GWA may award other contracts for additional work, and the Bidder shall fully cooperate with such other contractors and carefully fit his own work to that provided under other contracts as

may be directed by the Contracting Officer. The Bidder shall not commit or permit any act which will interfere with the performance of work by any other contractor.

SECTION 7. DISPUTES:

Except as otherwise specifically provided in this contract, all disputes concerning questions of fact arising under this contract shall be decided by the GWA General Manager whose decision shall be final and conclusive upon the parties thereto. In the meantime, the Bidder shall diligently proceed with the work as directed. However, the final decision of the GWA General Manager is appealable to the Guam Public Auditor as provided under 5 G.C.A. § 5427(e).

SECTION 8. CONTRACT BINDING:

It is agreed that this Contract and all the Covenants hereof shall insure to the benefit of and binding upon GWA and the Bidder respectively and his parties, successors, assignees and legal representative. Neither GWA nor the Bidder shall have the right to assign, transfer or sublet his interests or obligations hereunder without written consent of the other party.

It is hereby mutually agreed by and between the parties hereto that no mechanic, contractor, subcontractor, material man or other person can or will contract for or in any other manner have or acquire any lien upon the binding or works covered by this contract, or the land upon which the same is situated.

SECTION 9. GWA NOT LIABLE:

A. GWA, its officers, agents, employees and governing board assumes no liability for any accident or injury that may occur to the Contractor, Contractor's agents, employees, or to Contractor's property while on the job or otherwise en route to or from the job during any travel required by the terms of this agreement.

B. GWA, its officers, agents, employees and governing board shall not be liable to Bidder for any work performed by the Bidder prior to the written and signed approval of this Contract by the General Manager for GWA and the Bidder hereby expressly waives any and all claims for service performed in expectation of this agreement prior to its signature of the General Manager.

SECTION 10. NOTICES:

All notices between the parties shall be in writing and shall be deemed served when personally delivered or when deposited in the mail, registered or certified, first-class postage prepaid, addressed as follows:

To: **GUAM WATERWORKS AUTHORITY**

Greg P. Cruz
Interim General Manager
Gloria B. Nelson Public Services Building
688 Route 15, Mangilao, 96913

To: **BIDDER**

Jerry A. Flores
Chief Financial Officer
Total Chemical Resources
PO Box 20730
Barrigada, GU 96921
Tel: 646-4742
Fax: 649-0447

SECTION 11. TERMINATION:

Section 11.1 – Termination For Default:

(1) Default. If the Bidder refuses or fails to perform any of the provisions of this contract with such diligence as will ensure its completion within the time specified in this contract, or any extension thereof, otherwise fails to timely satisfy the contract provisions, or commits any other substantial breach of this contract, GWA may notify the Bidder in writing of the delay or non-performance and if not cured in five (5) working days or any longer time specified in writing by the GWA, GWA may terminate the Contractor's right to proceed with the contract or such part of the contract as to which there has been delay or a failure to properly perform. In the event of termination in whole or in part the GWA may procure similar services in a manner and upon terms deemed appropriate by the GWA. The Bidder shall continue performance of the contract to the extent it is not terminated and shall be liable for excess costs incurred in procuring similar services.

(2) Contractor's Duties. Notwithstanding termination of the contract and subject to any directions from the GWA, the Bidder shall take timely, reasonable, and necessary action to protect and preserve property in the possession of the Bidder in which GWA has an interest.

(3) Compensation. Payment for completed services delivered and accepted by the government and GWA shall be at the contract price. GWA may withhold from amounts due the Bidder such sums as the GWA deems to be necessary to protect GWA against loss because of outstanding liens or claims of former lien holders and to reimburse the GWA for the excess costs incurred in procuring similar goods and services (including the provision of these goods and services by GWA personnel). In the event that the Bidder fails to complete the work called for in the bid, fails to provide the goods or services in the allotted time, then Bidder shall pay to GWA ¼ of 1% of the total bid price per day as liquidated damages for the non-performance as specified by the Guam Code Annotated. The liquidated damages herein are not a penalty, but rather a reasonable estimate by GWA of the loss it would suffer as a result of non-performance.

(4) Excuse for Nonperformance or Delayed Performance. Except with respect to defaults of sub-contractor(s) of Contractor, the Bidder shall not be in default by reason of any failure in performance of this contract in accordance with its terms (including any failure by the Bidder to make progress in the prosecution of the work hereunder which endangers such performance) if the Bidder has notified the GWA within fifteen (15) days after the cause of the delay and the failure arises out of causes such as: acts of God; acts of the public enemy; fires; floods;

epidemics; quarantine restrictions; strikes or other labor disputes; freight embargoes; or unusually severe weather. If the failure to perform or to make progress due to such causes similar to those set forth above, the Bidder shall not be deemed to be in default, unless the services to be furnished by the Bidder (or sub-contractor) were reasonably obtainable from other sources in sufficient time to permit the Bidder to meet the contract requirements. Failure of the Bidder (or sub-contractor) to perform for reasons other than cited above shall constitute a default of the Bidder unless cured by Bidder with a reasonable time. Upon request of the Contractor, GWA shall ascertain the facts and extent of such failure, and, if GWA determines that any failure to perform was occasioned by any one or more of the excusable causes, and that, but for the excusable cause, the Contractor's progress and performance would have met the terms of the contract, the delivery schedule shall be revised accordingly, subject to the rights of the GWA and the government of Guam under the laws of Guam.

(5) Erroneous Termination for Default. If, after notice of termination of the Contractor's right to proceed under the provisions of this clause, it is determined for any reason that the Bidder was not in default under the provisions of this clause, or that the delay was excusable under the provisions of Paragraph (4) (Excuse for Nonperformance or Delayed Performance) of this clause, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to Subsection C, below.

(6) Additional Rights and Remedies. The rights and remedies provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

Section 11.2 – Termination For Convenience:

(1) Termination. GWA may, when the interest of the government so requires, terminate this contract in whole or in part, for the convenience of the government or GWA (including the provision of services by any sub-bidder of the Contractor). GWA shall give 30 days advance written notice of the termination to the Bidder specifying the part of the contract terminated and when termination becomes effective.

(2) Contractor's Obligations. The Bidder shall incur no further obligations in connection with the terminated work (except in the case of Subcontractors where the Bidder is solely liable to GWA for their acts and/or non-performance or breach under this agreement) and on the date set in the notice of termination the Bidder will stop work to the extent specified. The Bidder shall also terminate outstanding orders and subcontracts as they relate to the terminated work. The Bidder shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated work. GWA may direct the Bidder to assign the Contractor's right, title, and interest under terminated orders or subcontracts to GWA. The Bidder must still complete the work not terminated by the notice of termination and may incur obligations as are necessary to do so.

(3) Right to Work Product. Upon termination of the contract for the convenience of the government or GWA or for any other reason, Bidder shall transfer title and deliver to GWA all documents and reports, plans, drawings, information and other material produced by Bidder or any of its sub-contractors in connection with the performance of this contract. The Bidder shall protect and preserve property in its possession or in the possession of any of its sub-contractors in which the GWA or the Government of Guam has an interest.

(4) Compensation.

(a) The Bidder shall submit a termination claim specifying the amount due because of the termination for convenience together with cost or pricing data to the extent required by § 3118 (Cost or Pricing Data) of the Guam Procurement Regulations bearing on such claim. If the Bidder fails to file a termination claim within one year from the effective date of termination, GWA may pay the Contractor, if at all, an amount set in accordance with Subparagraph (c) of this Paragraph.

(b) GWA and the Bidder may agree to a settlement provided the Bidder has filed a termination claim supported by cost or pricing data to the extent required by § 3118 (Cost or Pricing Data) of the Guam Procurement Regulations and that the settlement does not exceed the total contract price plus settlement costs reduced by payments previously made by the GWA and the contract price of the work not terminated.

(c) Absent complete agreement under Subparagraph (2) of this Paragraph, GWA shall pay the Bidder the following amounts, provided payments agreed to under Subparagraph (2) shall not duplicate payments under this Subparagraph:

(i) contract prices for services accepted under the contract;

(ii) costs incurred in preparing to perform and performing the terminated portion of the work plus a fair and reasonable profit on such portion of the work (such profit shall not include anticipatory profit or consequential damages) less amounts paid or to be paid for accepted supplies or services; provided, however, that if it appears that the Bidder would have sustained a loss if the entire contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss;

(iii) costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Subparagraph (b) of this clause;

(iv) the reasonable settlement costs of the Bidder including accounting, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the contract for the termination and settlement of subcontracts hereunder, together with reasonable storage, transportation, and other costs incurred in connection with the protection or disposition of property allocable to the terminated portion of this contract. The total sum to be paid the Bidder under this Subparagraph shall not exceed the total contract price plus the reasonable settlement costs of the Bidder reduced by the amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under Subparagraph (b) of this Paragraph, and the contract price of work not terminated.

(d) Cost claimed, agreed to, or established under Subparagraph (b) and (c) of this Paragraph shall be in accordance with Chapter 7 (Cost Principles) of the Guam Procurement Regulations.

SECTION 12. SEVERABLE PROVISIONS:

If any provision of this agreement shall be deemed by a court of competent jurisdiction to be invalid, then such provision shall be deemed stricken from the agreement and the agreement

shall be enforced according to its valid and subsisting terms and provisions. The terms of this Contract shall control in the event of any conflict between this Contract and any other document incorporated or referenced herein.

SECTION 13. GOVERNING LAW AND VENUE:

The validity of this agreement, as well as the rights and duties of the parties to this agreement, shall be governed by the laws of Guam. Moreover, any and all actions governing this agreement shall be brought in the Superior Court of Guam or the Guam District Court if applicable.

SECTION 14. OWNERSHIP OF DOCUMENTS:

All briefs, memoranda and other incidental Bidder work or materials furnished hereunder shall be and remain the property of GWA including all publication rights and copyright interests, and may be used by GWA without any additional cost to GWA.

SECTION 15. INDEMNITY:

Bidder agrees to save and hold harmless GWA, its board members, officers, agents, representatives, successors and assigns and other governmental agencies from any and all suits or actions of every nature and kind, which may be brought for or on account of any injury, death, or damage arising or growing out of the acts or omissions of the Contractor, Contractor's officers, agents (including subcontractors), servants or employees under this Agreement.

SECTION 16. GENERAL COMPLIANCE WITH LAWS:

The Bidder agrees that Bidder is to comply with all Federal and territorial laws, rules, regulations and ordinances applicable to the work being performed hereunder. Bidder shall attach a copy of appropriate business license or an affidavit executed under penalty of perjury that indicates that Bidder is exempt under Guam law (must include legal citations proving exemption).

SECTION 17. ACCESS TO RECORDS AND OTHER REVIEW:

The Contractor, including his subcontractors, if any, shall maintain copies of all books, documents, papers, accounting records and other evidence pertaining to costs incurred and to make such materials available at their respective offices at all reasonable times during the contract period and for three (3) years from the date of the final payment under the contract, for inspection by the Guam Waterworks Authority. All originals of any documents related to this Contract shall be provided to GWA as soon as possible, but not later than one day prior to the conclusion of this Agreement. Each subcontract by Bidder pursuant to this agreement shall include a provision containing the conditions of this Section.

SECTION 18. SCOPE OF AGREEMENT.

This Agreement supersedes any and all other Agreements, either oral or in writing, between the parties hereto with respect to retaining the services of Bidder by the GWA and contains all of the covenants and terms between the parties with respect to such this project. Each party to this Agreement acknowledges that no representation, inducements, promises or agreements, orally or

otherwise, have been made by any party, or anyone acting on behalf of any party which are not embodied herein, and that no other agreement, statement, or promise not contained in this Agreement and addenda will be effective only if it is in writing signed by the party to be charged. For the purposes of this paragraph and of the entire agreement, the signature of the General Manager for the Guam Waterworks Authority (or his designee) is the only signature that will bind the GWA.

SECTION 19. RESPONSIBILITY OF CONTRACTOR.

In addition to the other requirements set forth in the bid and this Contract, the Bidder shall be responsible for the professional and technical accuracy of all work and goods furnished under this contract. The Bidder shall, without additional cost to GWA, correct or revise all errors or deficiencies in his/her work.

GWA's review, approval, acceptance of, and payment for goods, fee, or for services required under this contract, shall not be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the Contractor's failure of performance of this contract and the Bidder shall be and remain liable to the GWA for all costs of any kind which may be incurred by the GWA as a result of the Contractor's negligent or erroneous performance of any of the services performed under this contract. GWA shall continue to remain liable for its own negligent acts and those of its employees and its failure to perform as provided under this agreement.

SECTION 20. CHANGE ORDERS.

By written order, at any time, and without notice to Contractor's surety, GWA may, subject to all appropriate adjustments, make changes within the general scope of work of this Contract in any one or more of the following:

1. Drawings, designs or specifications, if the supplies or services to be furnished are to be specifically manufactured for GWA in accordance therewith;
2. Method of shipping or packing; or
3. Place of delivery.

If any such change order increases or decreases the contractor's cost of, or the time required for performance of any part of the work under this contract, whether or not changed by the order, an adjustment shall be made and the contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with the Price Adjustment Clause of this Contract.

Failure of the parties to agree to an adjustment shall not excuse the Bidder from proceeding with the Contract as changed, provided that GWA promptly and duly make such provisional adjustments in payment or time for performance as may be reasonable. By proceeding with the work, the Bidder shall not be deemed to have prejudiced any claim for additional compensation, or an extension of time for completion.

Within 30 days after receipt of a written change order, unless such period is extended by GWA in writing, the Bidder shall file notice of intent to assert a claim for an adjustment. Later

notification shall not bar the contractor's claim unless GWA is prejudiced by the delay in notification. No claim by the Bidder for an adjustment hereunder shall be allowed if notice is not given prior to final payment under this Contract.

In the absence of such a change order, nothing in this clause shall be deemed to restrict the Contractor's right to pursue a claim arising under the contract if pursued in accordance with the clause entitled "Claims Based on Acts or Omissions by GWA" of this Contract.

SECTION 21. STOP WORK ORDERS.

GWA may by written order to the Contractor, at any time, and without notice to any surety, require the Bidder to stop all or any part of the work called for in the Contract. This order shall be for a specified period not exceeding ninety (90) days after the order is received by the Contractor, unless the parties agree to any longer period. Upon receipt of the order, the Bidder shall comply with its terms and take all reasonable steps to minimize the occurrence of costs allocable to the work covered by the order during the period of work stoppage. Before the stop work order expires, or within any further period to which the parties have agreed, GWA shall either cancel the work order or terminate the work covered by the order as provided under the Termination for Default or Termination for Convenience Clauses contained in this contract.

If a stop work order issued under this clause is cancelled at any time during the period specified in the order, of the period of the order or any extension thereof expires, the Bidder shall have the right to resume work. An appropriate adjustment shall be made to the delivery schedule or Bidder only if: (a) the stop work order results in an increase in the time required for performance or the contractor's cost; and (b) if the Bidder asserts a claim for such an adjustment within thirty (30) days after the end of the period of work stoppage; provided that, if GWA decides that the facts justify such action, any such claim asserted may be received and acted upon at any time prior to final payment under this Contract. If a stop work order is not cancelled and the work covered by the order is terminated for default or convenience, the reasonable costs resulting from the stop work order shall be allowed pursuant to the price adjustment clause of this Contract.

SECTION 22. CLAIMS BASED ON ACTS OR OMISSIONS BY GWA.

If any action or omission on the part of GWA requiring performance changes within the scope of the contract constitutes the basis for a claim by the Bidder for additional compensation, damages, or an extension of time for completion, the Bidder shall continue with performance of the contract in compliance with the directions or orders of GWA, but by so doing, the Bidder shall not be deemed to have prejudiced any claim for additional compensation, damages, or an extension of time for completion; provided:

(a) the Bidder shall have given written notice to GWA:

(i) prior to the commencement of the work involved, if at that time the Bidder knows of the occurrence of such action or omission;

(ii) within 30 days after the Bidder knows of the occurrence of such action or omission, if the Bidder did not have such knowledge prior to the commencement of the work; or

(iii) within such further time as may be allowed by the Procurement Officer in writing.

This notice shall state that the Bidder regards the act or omission as a reason which may entitle the Bidder to additional compensation, damages, or an extension of time. The Procurement Officer or designee of such officer, upon receipt of such notice, may rescind such action, remedy such omission, or take such other steps as may be deemed advisable in the discretion of the Procurement Officer or designee of such officer.

(b) the notice required by Subparagraph (a) of this Paragraph describes as clearly as practicable at the time the reasons why the Bidder believes that additional compensation, damages, or an extension of time may be remedies to which the Bidder is entitled; and

(c) the Bidder maintains and, upon request, makes available to the Procurement Officer within a reasonable time, detailed records to the extent practicable, of the claimed additional costs or basis for an extension of time in connection with such changes.

Nothing herein contained, however, shall excuse the Bidder from compliance with any rules of law precluding any GWA official or its Contractors from acting in collusion or bad faith in issuing or performing change orders which are clearly not within the scope of the contract.

Any adjustment in the contract price made pursuant to this clause shall be determined in accordance with the Price Adjustment Clause of this contract.

SECTION 23. EFFECTIVE DATE OF THIS CONTRACT.

This agreement shall take effect upon the date it is signed by both the General Manger and the Bidder and the date of this agreement shall be when the General Manager affixes his signature.

GUAM WATERWORKS AUTHORITY:

Miguel Bordallo
General Manager

Date: 1.20.16

CONTRACTOR:

Jerry A. Flores
Authorized Representative

Date: 12/17/15

Certified Funds Available:

Certifying Officer
Guam Waterworks Authority

01/08/16

Date: 1.8.16

Approved as to Form and Legality:

Samuel J. Taylor
GWA Legal Counsel

Date: 1/20/16

Contract Amount: $3,024,623.64

Amount Certified: $ 1,348,310 FY 16 only

Source of funding: Revenue Funded

Certifying Officer: Greg P. Cruz, CFO

Date:

Special Note: The corporate authorization contained within the bid specifies that Jerry A. Flores is provided with the power to bind Total Chemical, Inc. relative to this bid.

******* END OF CONTRACT *****

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. 07-FY2019
Relative to Approval of Change Order to the Construction Management Contractor for the Agat Santa Rita Wastewater Treatment Plant Upgrades

What is the project's objective and is it necessary and urgent?
The construction management change order(s) for CM services will allow for a continuity of services as it relates to any construction extension at the new Agat-Santa Rita WWTP Upgrades project due to contractor issues. The construction contractor, Sumitomo Mitsui Construction Company (SMCC), has submitted to GWA extension requests that will push the completion of the project to March 2019. GWA management has reviewed SMCC's delay claims and is willing to provide a contract extension but only to September 2018. After this time the contractor will be assessed Liquidated Damages until the project is completed.

Currently the remaining major items to be completed are the equalization basin and maintenance building.

Where is the location?
The project location is at the New Agat-Santa Rita Wastewater Treatment Plant in Agat

How much will it cost?
GWA management has received a fee proposal from GHD in the amount of Nine Hundred Seventy-Seven Thousand One Hundred Ninety-Seven Dollars ($977,197.00) however GWA will be negotiating down this fee proposal given the level of staffing and construction activities will ramp down towards the end of the construction period. Due to the timing of approvals GWA management is still seeking CCU approval for a funding increase to a not-to-exceed amount of $977,197.00.

When will it be completed?
The construction contractors latest schedule shows the project completion will be by March 2019.

What is the funding source?
Funding for any Change Order to GHD moving forward will be from any available bond funds under the line item - WW 11-08 "Agat/ Santa Rita STP Replacement", System Development Charge funds and Internally Funded CIP funds as well as Liquidated Damages of $5,000 per day from the contractor beginning September 1, 2018.

The RFP/BID responses (if applicable):
Not Applicable.

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

RESOLUTION NO. 07–FY2019

RELATIVE TO APPROVAL OF CHANGE ORDER TO THE CONSTRUCTION MANAGEMENT CONTRACT FOR THE AGAT SANTA RITA WASTEWATER TREATMENT PLANT UPGRADES

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 currently has a number of critical Court Order ("CO") projects including work required at the Agat Santa Rita Wastewater Treatment Plant (WWTP) that is necessary for the plant to achieve compliance with the WWTP's NDPES permit, eliminate by-passes at the plant, ensure that solids generated by the WWTP are adequately stabilized and dewatered, and to comply with sludge and biosolids requirements 40 C.F.R. Part 503 as stated in Paragraph 11 of the 2011 Court Order; and

WHEREAS, GWA executed a contract with Sumitomo Mitsui Construction Company (SMCC) to construct the new WWTP by November 1, 2017, and

WHEREAS, GWA executed a contract with GHD, Inc. to provide construction management services as a means towards achieving the Court Order requirements; and

WHEREAS, the original scope and fee for the construction management services estimated an eighteen-month construction period for vertical construction activities that SMCC was contracted to do which resulted in the CM services ending June 8, 2017; and

WHEREAS, CCU Resolution No. 48-2017 authorized the continuation of CM services from August 15, 2017 through March 31, 2018, after which GWA executed Change Orders 2 and 3 in the total amount of One Million Fourteen Thousand Four Hundred Twelve Dollars ($1,014,412.00); and

WHEREAS, CCU Resolution No. 17-FY2018 authorized the continuation of CM services from April 1, 2018 through August 31, 2018, after which GWA executed Change Orders 4, 5 and 6 in the total amount of Eight Hundred Twenty Thousand Three Hundred Thirty-Two Dollars ($822,632.00);

WHEREAS, the project Contractor, SMCC, has submitted documentation to GWA management (See Exhibits A and B) wherein they now project the completion of all construction activities will not occur until March 2019 and the reason for this delay is due to additional claims of adverse weather stopping work progress, work force shortages as a result of the H2-B visa program denying work permit renewals and additional work resulting in approved Change Orders; and

WHEREAS, GWA management has reviewed SMCC's delay claims and transmitted a respond letter dated October 29, 2018 (See Exhibit C) in which GWA considered all aspects of SMCC claims and is willing to provide a contract extension but only to August 2018 given that GWA, over the construction period, approved financial measures to SMCC that would have allowed work and schedule to be accelerated thus maintaining a reasoned expectation of the project being completed as planned; and,

WHEREAS, notwithstanding the issues surrounding the contractor delays and a means of allowing for continuity of construction management services as it relates to any construction extension due to contractor issues, GWA requested GHD submit a fee proposal to continue construction management service for which GHD has provided to GWA a Nine Hundred Seventy-Seven Thousand One Hundred Ninety-Seven Dollars ($977,197.00) fee proposal through April 2019 (See Exhibit D); and

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DRAFT

WHEREAS, GWA management will be negotiating down the fee proposal submitted by GHD given the level of staffing and construction activities will ramp down towards the end of the construction period but until final negotiated fees are reached GWA management still seeks CCU approval of additional funding to execute Change Order(s) to a not to exceed the amount of Nine Hundred Seventy-Seven Thousand One Hundred Ninety-Seven Dollars ($977,197.00) for the extended contract performance period because the timing of any change order approval may not coincide with scheduled CCU meetings; and

WHEREAS, the authorization of the requested funding increase to the Construction Management contract would potentially bring the total value to a not to exceed amount of Six Million One Hundred Thousand Eight Hundred Ten Dollars and Zero Cents ($6,100,810.00); and

WHEREAS, funding for any Change Order to GHD moving forward will be from any available bond funds under the line item - WW 11-08 "Agat/ Santa Rita STP Replacement", System Development Charge funds and Internally Funded CIP funds as well as Liquidated Damages of $5,000 per day from the contractor beginning September 1, 2018; 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 approves the funding increase for construction management services to an amount not to exceed Nine Hundred Seventy-Seven Thousand One Hundred Ninety-Seven Dollars ($977,197.00) (Exhibit D).
3. The CCU further approves the total contract value for GHD is an amount not to exceed Six Million One Hundred Thousand Eight Hundred Ten Dollars ($6,100,810.00).
4. The source of funding for any Change Order to GHD moving forward will be from any available bond funds under the line item - WW 11-08 "Agat/ Santa Rita STP Replacement", System Development Charge funds and Internally

Funded CIP funds as well as Liquidated Damages of $5,000 per day from the contractor beginning September 1, 2018.

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

DULY AND REGULARLY ADOPTED, this 27th day of November 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

SUMITOMO MITSUI CONSTRUCTION CO.,LTD.
GUAM OFFICE: P.O.Box9670 Tamuning, Guam96931, Phone : ++1-671-649-7521 - 24 Fax : ++1-671-649-7550

May 16, 2018

Reference No.: LT-18-020

TO: **Mr. John McArthur Davis, P.E.**
GWA Project Manager
GUAM WATERWORKS AUTHORITY
Gloria B. Nelson Public Service Building,
688 Route 15, Mangilao, Guam 96913

Thru: **Mr. Bryan J. Ryley**
Construction Manager
GHD, Inc.
865 South Marine Corps, Suite 202,
Guam 96913

PROJECT: IFB-07-ENG-2015
CONSTRUCTION OF AGAT-SANTA RITA WASTEWATER TREAMENT PLANT REPLACEMENT; GWA PROJECT NO. S14-002-BND

SUBJECT: **Request for Project Time Extension**

Dear Mr. Davis,

This is to request project extension with following reason SMCC encountered in implementation of this project.

Due to rejection of H-2B Temporary Alien Skilled workers, we were unable to obtain planned numbers of manpower, which is necessary to acquire to complete the project on time.

As shown in work load analysis sheet, SMCC planned to obtain ***126*** workers as average and ***150*** at peak construction duration based on analysis that project require ***475,200*** man-hours to complete within specified construction period of ***660*** days (Jan/11/2016 to Nov/1/2017)

※ ***126 x 660 x 5/7 x 8 hrs. =475,200*** man-hours

On the other hand, due to the H2B issue, we had been facing Island wide shortage of workers from the beginning to date. As a consequence, SMCC could obtain much less work force comparing to the original plan and cumulative total man-hour is ***383,560*** man-hours at the end of April, 2018. This is the ***81%*** of planned total man-hours to complete the project and it indicate the current progress percentage is understandable. It is also indicating, we have to spend

181 calendar days to complete the project from May 1st, 2018, which is ***October 29, 2018.***

SMCC have been trying all the effort to improve the said workforce shortage based on GWA' s instructions and supports, I believe SMCC attained considerable progress and accelerated the project as achievable as possible.

One of those efforts, SMCC oriented to engage about 645 workers (From April 5, 2016 ~ May 7, 2018) with the following subcontractors:

1. Hyun Hee Construction.
2. JHC Corporation
3. KPL Guam Co., Ltd.
4. FJMAE Builders – General Contractors
5. VRM General Contractor
6. Tonets Corporation DBA TNK Guam/ Guam Advance
7. VG Gozum Construction LLC

Despite those efforts, we could obtain only 70 workers as daily average versus to the original plan of 126 workers.

It is clear that regardless contractor's will and efforts, it is impossible to achieve the project on time due to above described situation, which we consider beyond contractor's control.

Therefore, we are herewith requesting project extension upto ***October 29, 2018*** based on the above consideration and calculation of necessary working days of 155 days from May 1st, 2018 to complete the project.

Sincerely,

SUMITOMO MITSUI CONSTRUCTION CO.LTD



TAKEYUKI SHIINO
General Manager
Guam Office

Attachments No.1 : Work-load analysis sheet
No.2 : Actual Total man-hours up to April 30, 2018

EXHIBIT B

SUMITOMO MITSUI CONSTRUCTION CO.,LTD.
Guam Office : P. O. Box 9670 Tamuning, Guam 96931
Tel: +1- (671) 649-7521~24 Fax: +1- (671) 649-7550

October 8, 2018

Reference No.: LT-18-045

TO: **Mr. John McArthur Davis, P.E.**
GWA-Project Manager
GUAM WATERWORKS AUTHORITY
Gloria B. Nelson Public Service Building,
688 Route 15, Mangilao, Guam 96913

Thru: **Mr. Bryan J. Ryley**
Construction Manager
GHD, Inc.
865 South Marine Corps, Suite 202,
Guam 96913

PROJECT: IFB-07-ENG-2015
CONSTRUCTION OF AGAT-SANTA RITA WASTEWATER TREATMENT PLANT REPLACEMENT; GWA PROJECT NO. S14-002-BND

SUBJECT: **Request for Time Extension (2)**

Dear Mr. Davis,

This letter is in continuation of SMCC's letter with Reference No. LT-18-020 dated May 16, 2018.

Since the very beginning of this subject project, SMCC has been trying to expedite all works to meet the time line of the project. On the contrary to such efforts, it did not work out well as our intention because of the island wide worker's shortage due to H2B visa rejection. The situation became worse as a consequence of the heavy demand of construction workforce for military build-up especially after recent awards for the major military projects in Guam and we lost many workforce due to the construction booms in Saipan.

As on-going major structural works in Agat Santa Rita project, Equalization Tank and Maintenance Building are substantially delayed due to the reasons above. Structural sub-contractors are facing more severe shortage of workers comparing before. Please see attached letters (attachment no 1) from sub-contractors.

As we informed in our previous letter, about 9 months delayed from our original schedule due to labor shortage (see attachment 2) and about 6 months delayed due to rain days (approved under CO 4, 8 and 10). And in recent months, invariably daily wet condition at site. Please see attached summary (attachment no. 3) of rain days from April 24th 2018 to September 30th 2018 which is 36 working days.

We also carried out on various additional works under Change Order No. 2 to 11 and to date we did not request time extension for those additional works yet.

We would like to inform other possible cause for further delay due to the time taking approval process as below;

The Change Order on Lighting Arresters and Surge Protection (SMCC Letter No. SMCC/ASWWTP-LTR-105 submitted in March 6, 2018 and updated on August 6th, 2018 due to changes in detail plan and Change Order for the Generator at Ga'an (SMCC Letter No. LT-18-029 submitted last June 25, 2018) are still pending approval. We have prepared schedule on these works by expecting approval by October 15, 2018 (see attachment 4)

As a current schedule;
We are scheduling to carry out Asphalt works at highlighted areas (see attachment 5) by December 2018.

The revised schedule summary is attached for your review and approval (attachment 6).

We are hereby requesting time extension up to March 2019 to complete all the item of works except the supply and installation of Generator at Ga'an Pump Station.

GWA Work Session - November 20, 2018 - ISSUES FOR DECISION

And we are also requesting to make this item(supply and installation of Generator at Ga'an Pump Station) as independent agreement to the current contract, so we can close the contract by March, 2019.

We request this because this long lead time item was informed to SMCC recently and still waiting for approval, therefore SMCC do not have sufficient time to complete within the same time limit of other remaining works.

Your consideration and approval on this request will be very much appreciated.

Sincerely,

SUMITOMO MITSUI CONSTRUCTION CO. LTD.

TAKEYUKI SHIINO
General Manager
Guam Office

GWA Work Session - November 20, 2018 - ISSUES FOR DECISION

ATTACHMENT 1

Doc. No. 34GL-18-2583. *

GWA Work Session - November 20, 2018 - ISSUES FOR DECISION

JHC CORPORATION

Winner Building 20-H Tamuning Guam 96913 Tel:687-3828
P.O.Box 12999 Tamuning Guam 96931-2999 Fax:646-7310

Date : February 25, 2018
To : Mr. Nandagopalan
Project Manager

Project : Agat-Sta.Rita Waste Water Treatment Plant
(Administration Building)

Subject : Project Time Extension

Hafa Adai,
This is to formally request your good office to allow the time extension of completion for the above stated project due to the following reasons:

1. Lack of Manpower
2. Continuous Rain

As per our experience while constructing the recently completed structures, the clarifiers, lack of manpower has already been an issue for us. This is due to the H2B Visa issues as you very well knew. After the cancellation of our request for visa renewal, we cannot anymore attain the completion date as per our sub-contract for the Administration Building.
Also, rain weather greatly affects our production. In most instances, rain stopped our works almost in daily routine and production is commensurably affected.
With the above, we humbly request to complete the above said structure with an additional 4 months extension up to end of August 2018.
We appreciate that SMCC is offering more works to carry out structure construction namely Maintenance Building and Equalization Tank but unfortunately due to non-availability of workers, we cannot commit to carry-out any additional works for now.
We hope that with your consideration, this request will be granted.

Thank you very much.

Feb. 2018

CHEN ZHONG MIN DATE
President

KPL GUAM CO., LTD.
GENERAL CONTRACTOR

Unit 203 Photo Town Plaza
353 Chalan San Antonio
Tamuning, Guam 96913
Phone No.: (671)685-2521

Date : Sept. 25, 2018

To : Mr. Nandagopalan
Project Manager

Project : Agat-Sta.Rita Waste Water Treatment Plant (Centrifuge, Aerobic Building and EQ Tank)

Subject : Manpower Shortage

Sir,

KPL Construction has been very appreciative on the business provided to us with the construction of Three (3) Concrete structures namely Centrifuge, Aerobic Building and Equalization Tank.

However, with the manpower commitment by KPL on the on-set of these projects, needed to be supplied for the performance of those building works as previously discussed and sub-contracted, it is evident that the problem of manpower shortage still persists, despite our efforts to constantly publish an ads for manpower requirements. There were workers whom we initially hired and tested, but skillfulness were below standard. This only resulted into delay and repair of works and may continue to happen in the future if only meeting the number of manpower is required, thus not practicable, quality and money wise.

With the above scenario, we feel that the problem will not be resolved until the government allows the re-entry of H2B visa workers other than military projects.

We are deeply concern on this issue but we seek your understanding on our initial request to extend the completion date of the Equalization tank by 2 months (end of December) without weather limitations. As you may know, weather disturbances had also been prevailing yearlong thus production had been minimized if not limited.

Nonetheless, we were notified and aware that the completion of the large structure (Equalization Tank) is critical but please bear with us on this request and rest assured that KPL will continue to try looking for qualified workers and finish all works in the soonest time possible.

Thank you and best regards,

Vince Carmona III

HYUN HEE CONSTRUCTION CORPORATION

General Contractor Civil Structure Works
P.O. Box 2727 Tamuning, Guam 93961
Tel.: (671) 777-3123

Date : June 07, 2018

To : Mr. Nandagopalan
Project Manager

Project : Agat-Sta.Rita Waste Water Treatment Plant

Subject : Manpower Supply

Sir,

Hyun Hee Construction has been supportive on SMCC's requirements for manpower supply for various trade more than a decade now. In return, SMCC likewise provided the projects from place to place into which Hyun Hee was very grateful of.

However, with H2B visa issues, Guam's limited workers become very demanding for all contractors doing projects, thus competition among contractors to secure workers become competitive as well. Most of our previous workers succumb to this trend and move from contractors to contractors who can give them the most benefits. Almost 45% of our workers are already employed by other contractors not to mention workers that went to Saipan for a better fortune.

Due to this, despite our pleads and request to stay-on and complete this project, most of them still prefers and choose to leave even leaving their families behind in Guam.

With this problem, we regret that we cannot commit additional workers, other than what we have right now. Rest assured that, with our network/connections on islanders that are with us, we will continue to spread news of our demands for additional workers and support further SMCC's needs.

Hoping for your understanding.

Thank you,

Suk Joong Kim
President

VRM General Contractor
Construction Company
176 Perdron Goro Bordallo Subdivision
Yig`o, Guam 96929
Mailing Address: PMB 1001 1270 North Marine drive
STE 101 Tamuning, Guam 96913
Phone: 671-989-3913 Cell: 671-998-3294

To: Mr.Takiyuki Shino
General Manager
Sumitomo Mitsui Corporation Co. LTD

Sept.28,2018

RE: Agat Santa Rita Waste Treatment Plant Replacement
Electrical Works Delayed Due to Insufficient Manpower

Sir,

We regret to inform you that VRM has been having problems with providing workers to complete our works on time. Island wide problem of manpower shortage has been an issue thus haunting us up this time. Most of our trusted guys, permanent and temporary workers previously assigned to this project were pirated by other contractors. I apply for H2B visa just to import dependable and highly skilled electrician to work this project but unfortunately denied.

Nonetheless, with available workers we have now, we still stand committed to complete the project in the soonest.

Sincerely Yours,

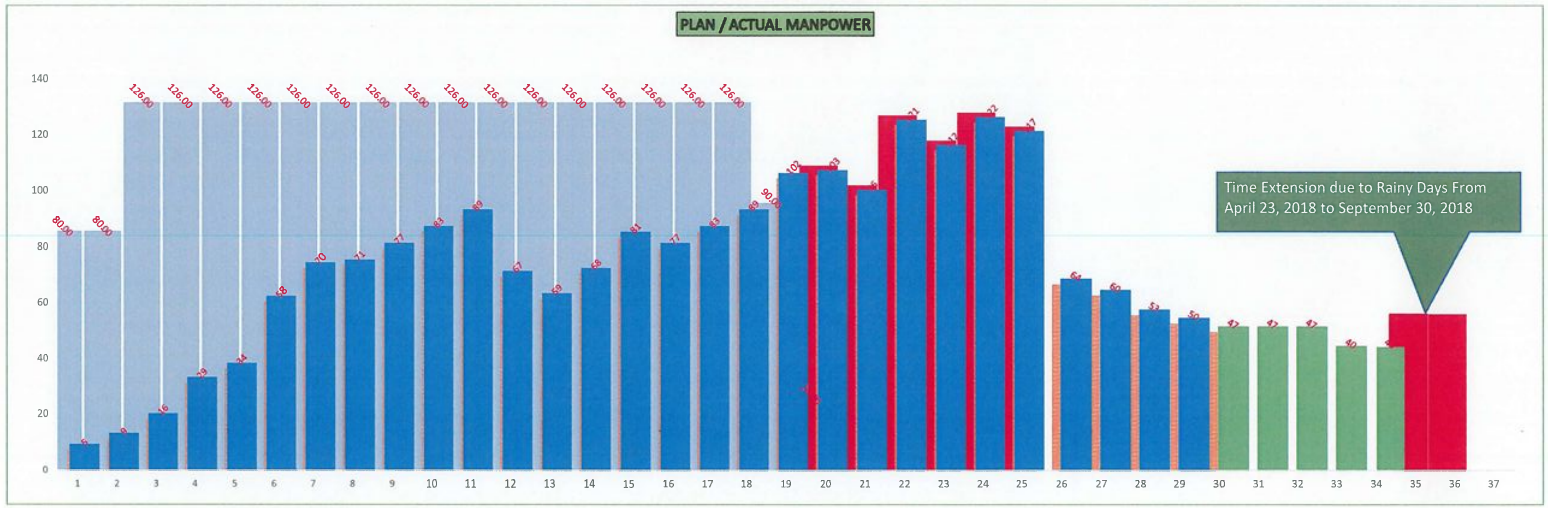
Victoriano C. Cabinta
VRM General Contractor

ATTACHMENT 2

PROJECT: AGAT-STA.RITA WASTE WATER TREATMENT PLANT
Contractor: Sumitomo Mitsui Const. Co. Ltd.

Year	2016									2017												2018												2019				Total
Month	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Plan	80	80	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	90	20																		2286
Actual up to Sept	5	9	16	29	34	58	70	71	77	83	89	67	59	68	81	77	83	89	102	103	96	121	112	122	117	64	60	53	50	47								2112
Actual (April)	5	9	16	29	34	58	70	71	77	83	89	67	59	68	81	77	83	89	102	103	96	121	112	122	117													1838
Needed Mandays																										64	60	53	50	47	47	47	40	40				448
Extension due to Weather (Days)																																						36 days (Feb. 1 - March 22, 2019)

Total Needed Mandays = Total Planned Mandays minus Total Actual up to April
= 2286 - 1838
= 448 Mandays



2286
1838
448
36 days (Feb. 1 - March 22, 2019)

Total Planned Mandays Required per contract up to November 1, 2017
Actual Mandays up to April 23, 2018
Needed Mandays to Complete beyond April 23, 2018
Days of Weather effects beyond January 31, 2019 (Feb 1-March 25, 2018)

PROJECT: AGAT-STA.RITA WASTE WATER TREAMENT PLANT

MANPOWER LOG

2016

Apr-16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	TOTAL	MANHOUR
Skilled	1	0	0		3	3	3	3	0	3	3	3	3	4	2	0	2	2	3	3	3	1	0	5	5	5	5	4	4		3	5	608
Unskilled	0	1	0		0	1	0	0	0	0	4	4	4	4	0	4	0	4	4	4	4	4	1	0	3	3	3	3	3		2.44		488
May-16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	0	5	5	5	5	4	3	0	5	5	6	6	6	4	0	6	6	6	10	10	3	0	6	6	6	6	6	3	0	1	8	5.461538	9	1136
Unskilled	0	3	3	3	3	3	3	0	3	5	5	6	6	2	0	4	5	5	6	6	4	0	1	3	5	3	3	1	0	0	6	3.730769		776
Jun-16	1	2	3		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		22	23	24	25	26	27	28	29	30	31			
Skilled	9	8	7	0	0	9	8	7	7	6	9	4	11	11	11	10	9	6	0	13	14	14	15	16	7	4	14	14	11	20		10.6	16	2192
Unskilled	6	5	4	0	1	3	5	6	6	6	3	0	6	6	6	6	6	3	0	4	8	8	9	9	5	0	7	7	8	9		5.84		1216
Jul-16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	14	10	4	4	10	19	19	19	17	5	19	21	18	15	13	14	4	24	3	21	18	28	18	7	26	22	18	15	17	14	6	17.92	29	3696
Unskilled	11	9	0	0	7	13	10	12	8	1	10	12	14	13	13	11	0	18	18	15	8	17	8	2	16	11	17	7	8	5	1	11.36		2360
Aug-16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	16	15	7	3	12	23	6	25	28	21	24	23	18	5	21	27	26	25	12	20	7	25	8	32	28	28	25	3	28	28	62	22.77778	34	5048
Unskilled	8	15	2	0	8	2	0	10	12	9	10	13	7	0	14	14	15	17	17	13	1	13		20	17	15	12		16	19	21	11.55556		2560
Sep-16	1	2	3		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	28	33	25	7	29	35	5	24	31	28	23	11	34	34	31	30	27	12	37	40	37	40	38	30	12	49	37	36	32	35		33.68	58	6960
Unskilled	31	28	21	3	13	29	8	33	36	22	7	4	24	28	25	22	14	4	28	26	28	27	29	18	0	24	22	23	25	25		23.84		5016
Oct-16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	38	17	35	42	38	44	41	39	16	40	49	40	48	45	41	21	34	51	49	48	45	36	17	45	47	49	51	49	41	45	45	46.46154	70	9968
Unskilled	20	7	24	23	28	29	26	22	10	20	24	22	30	23	21	7	17	16	24	24	21	19	8	20	22	21	22	26	18	19	19	23.53846		5056
Nov-16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	48	49	48	49	42	8	49	50	40	42	20	40	19	40	44	45	52	51	40	17	51	49	58	5	47	46	19	48	52	49		48.70833	71	9736
Unskilled	25	25	20	22	20	2	14	18	18	18	9	14	4	23	20	24	26	27	19	0	26	26	27	0	22	18	2	28	31	31		22.25		4472
Dec-16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	53	51	48	18	47	49	46	49	45	39	19	44	48	51	46	48	44	9	44	42	45	46	39	31	0	25	41	39	42	38	25	46.32	77	9688
Unskilled	18	21	23	2	19	25	28	31	32	23	2	37	42	32	38	43	28	3	34	39	41	35	41	9	0	7	29	36	27	34	9	30.8		6304

2017

Jan-17		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	0	29	55	53	55	51	43	19	45	50	42	49	56	49	20	39	48	49	52	49	46	23	48	48	47	49	47	34	23	49	59	51	83	10608
Unskilled	0	17	32	36	38	40	22	5	37	36	34	41	33	22	5	25	30	31	32	37	15	2	23	31	37	35	39	24	0	35	36	31.92308		6640
Feb-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	49	56	57	45	9	55	56	55	51	49	38	18	43	53	56	42	56	43	34	62	63	60	67	66	54	21	59	51				54.95833	89	10944
Unskilled	39	35	34	31	2	38	34	33	33	34	29	7	24	30	34	35	49	34	16	39	38	37	36	38	24	8	33	37				34.25		6888
Mar-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	37	42	43	39	33	49	51	44	46	38	37	34	43	48	39	38	35	4	0	29	31	38	40	38	35	9	31	35	34	37	34	39.03704	67	8728
Unskilled	22	27	32	19	10	29	25	36	36	38	30	10	46	28	29	23	25	10	0	23	31	32	33	30	19	3	26	31	24	22	31	28.07407		6240
Apr-17	1	2	3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	24	10	37	42	42	41	37	21	0	31	35	37	36	5	24	12	40	38	37	41	39	24	7	33	34	36	39	39	28	17		34.48	59	7088
Unskilled	22	4	26	28	33	27	27	20	0	24	24	25	33	2	11	4	27	33	28	34	35	14	1	20	28	29	35	35	14	4		25		5176
May-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		30	31			
Skilled	37	39	37	41	43	24	0	36	42	40	37	40	29	5	44	38	44	46	43	26	3	41	48	41	41	42	29	0	24	54	45	39.30769	68	8472
Unskilled	26	34	38	36	30	17	0	25	33	32	35	34	23	1	26	31	36	38	36	24	0	25	29	25	28	31	10	0	6	31	35	28.80769		6200
Jun-17	1	2	3		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		22	23	24	25	26	27	28	29	30	31			
Skilled	49	45	24	0	43	42	50	45	52	37	12	51	51	41	40	39	27	0	48	45	51	51	48	33	1	46	50	49	36	49		44.24	81	9240
Unskilled	36	36	16	0	24	28	35	28	30	27	2	36	33	36	39	46	27	0	33	44	42	44	49	29	4	42	48	52	36	49		36.6		7608
Jul-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	25	3	46	6	48	48	47	28	9	41	45	48	46	43	32	2	39	45	44	43	4	19	3	41	43	44	47	48	25	4	43	39.36	77	8072
Unskilled	21	2	45	3	44	46	45	33	5	31	44	46	49	50	22	0	38	45	44	39	0	21	0	40	39	43	46	45	28	3	43	37.56		7680
Aug-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	46	44	51	47	33	4	43	40	45	51	47	23	0	46	47	47	45	51	32	7	47	53	42	46	47	31	2	33	43	47	52	42.44444	83	9536
Unskilled	42	43	48	41	30	2	37	41	45	40	48	37	0	41	48	48	47	44	30	5	33	45	37	38	41	31	3	40	47	51	44	40.18519		9016
Sep-17	1	2	3		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	55	33	0	17	55	61	62	8	0	0	49	54	51	55	56	38	0	52	52	60	55	58	35	11	55	62	50	48	47	31		46.2	89	9680
Unskilled	48	34	0	20	46	48	46	6	4	0	48	53	57	53	51	30	0	50	49	40	47	47	25	5	39	50	60	58	55	39		42.4		8864
Oct-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	2	55	51	55	53	42	42	1	55	42	65	56	53	39	9	52	56	59	57	66	48	15	64	60	64	64	66	55	0	65	65	56.69231	102	11808
Unskilled	5	57	46	58	60	54	30	5	31	36	40	42	42	37	3	45	47	30	48	52	33	3	48	46	53	50	54	42	0	44	51	45.65385		9536
Nov-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	64	64	66	42	9	62	67	61	50	62	33	0	52	56	59	58	50	39	0	57	55	61	0	47	44	2	54	53	52	55		54.58333	103	10992
Unskilled	41	49	48	38	13	49	46	55	58	52	29	0	32	53	54	46	64	45	1	56	47	53	0	30	38	0	42	52	50	54		48.08333		9560
Dec-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	55	44	1	53	55	60	56	53	47	8	53	57	58	54	50	41	7	52	62	65	56	56	44	12	0	55	61	58	68	49	3	53.52	96	11144
Unskilled	55	42	3	50	51	46	43	45	39	11	44	52	50	60	46	21	4	41	49	50	46	52	32	4	0	24	38	40	52	27	3	42.6		8960

2018

Jan-18		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL		
Skilled	0	63	66	64	75	62	11	70	69	63	64	73	49	3	63	73	69	73	72	51	17	73	75	63	71	71	51	5	80	71	75	68.65385	121	14280
Unskilled	0	76	38	50	58	40	6	44	52	52	48	54	40	4	54	47	54	54	59	42	5	56	50	59	54	53	45	2	47	57	56	52.15385		10848
Feb-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	73	71	52	0	72	69	66	63	73	57	9	66	72	72	67	69	44	2	63	71	73	72	66	48	0	63	64	69				63.04167	112	12688
Unskilled	57	52	34	0	43	54	49	55	55	37	10	46	50	55	54	49	39	5	47	57	62	62	52	43	0	47	58	59				48.91667		9848
Mar-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		31			
Skilled	73	67	57	4	65	61	74	71	76	60	9	70	69	74	76	68	60	14	77	74	78	73	78	54	13	70	82	82	70	1	50	68.34615	122	14800
Unskilled	65	57	48	2	52	53	58	60	64	47	2	46	57	51	51	58	42	14	51	64	62	58	63	49	4	54	64	53	59	2	46	53.5		11648
Apr-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	12	72	73	73	75	76	44	8	66	69	67	58	69	63	15	76	79	79	80	73	47	0	64	63	65	67	68	41	0	57		67.48	117	13592
Unskilled	4	49	48	53	61	63	36	2	50	57	51	61	66	39	8	47	50	50	45	51	30	0	43	43	54	47	53	37	0	39		49.32		9896
May-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	46	46	45	48	42	0	40	41	44	44	43	35	1	36	37	35	40	40	29	3	36	38	38	38	38	29	0	20	40	40		31.16129	64	8096
Unskilled	47	44	44	43	35	1	34	37	42	36	44	35	0	40	40	46	42	45	32	5	42	45	43	43	46	35	0	27	45	47		32.83871		8520
Jun-18	1	2	3		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		22	23	24	25	26	27	28	29	30			
Skilled	39	15	20	37	39	38	36	37	17	17	41	40	40	41	34	17	16	38	40	41	37	34	12	15	32	33	37	38	34	11		29.56667	60	7408
Unskilled	46	32	0	39	36	41	40	41	30	0	43	39	41	39	32	21	0	34	39	42	44	39	22	0	39	36	37	42	42	30		30.66667		7728
Jul-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Skilled	0	38	38	10	14	28	28	4	36	35	36	38	40	29	0	27	36	31	39	30	0	0	37	38	37	35	36	25	4	36		25.32258	53	6280
Unskilled	9	35	42	19	11	19	26	12	40	41	43	46	47	34	0	22	47	40	44	32	0	0	33	38	41	39	34	26	9	36		27.6129		6920
Aug-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Current Manpower Ave.		
Skilled	31	33	32	28	19	18	14	32	34	33	28	21	31	18	35	38	37	23	20	34	18	33	35	40	32	21	31	17	33	34	34	27.6129	50	7096
Unskilled	24	30	30	12	0	23	26	24	26	26	16	0	26	29	30	25	29	17	1	21	23	33	33	32	21	3	30	30	32	32	32	22.32258		5728
Sep-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
Skilled	29	0	3	38	45	49	54	36	3	9	1	40	44	45	43	0	48	49	47	44	45	18	0	26	25	28	26	28	15	6	0	27.16667	47	6752
Unskilled	23	0	0	32	35	28	27	22	0	7	0	22	24	25	22	0	26	27	30	28	29	21	0	24	29	34	29	32	19	8	0	19.33333		4824

ATTACHMENT 3

Doc. No. 34GL-18-2583. *

Summary of Weather Days After April 23, 2018

	Ave Rainfall (inches/day)	Actual Days in Excess of the Ave. Rainfall (From Table 2)
Apr-18	0.12	2.00 days
May-18	0.14	8.00 days
Jun-18	0.24	5.00 days
Jul-18	0.39	4.00 days
Aug-18	0.55	8.00 days
Sep-18	0.47	9.00 days
	Subtotal:	***36.00 days***

2018	Precip. Accum.							Table 2	
Apr	Sum	MM	INCH				ACTUAL WEEK DAYS ABOVE AVE.	2.00	
1	0.5 mm	0.5	0.020	04/1/18	Sunday, April 01, 2018	TRUE	TRUE		
2	1.3 mm	1.3	0.051	04/2/18	Monday, April 02, 2018	0.051	-		
3	1 mm	1	0.039	04/3/18	Tuesday, April 03, 2018	0.039	-		
4	0 mm	0	0.000	04/4/18	Wednesday, April 04, 2018	0	-		
5	1 mm	1	0.039	04/5/18	Thursday, April 05, 2018	0.039	-		
6	10.2 mm	10.2	0.402	04/6/18	Friday, April 06, 2018	0.402	1.00	Considered in CO	
7	0 mm	0	0.000	04/7/18	Saturday, April 07, 2018	TRUE	TRUE		
8	14 mm	14	0.551	04/8/18	Sunday, April 08, 2018	TRUE	TRUE		
9	0 mm	0	0.000	04/9/18	Monday, April 09, 2018	0	-		
10	0 mm	0	0.000	04/10/18	Tuesday, April 10, 2018	0	-		
11	0 mm	0	0.000	04/11/18	Wednesday, April 11, 2018	0	-		
12	0 mm	0	0.000	04/12/18	Thursday, April 12, 2018	0	-		
13	0 mm	0	0.000	04/13/18	Friday, April 13, 2018	0	-		
14	7.6 mm	7.6	0.299	04/14/18	Saturday, April 14, 2018	TRUE	TRUE		
15	34.3 mm	34.3	1.350	04/15/18	Sunday, April 15, 2018	TRUE	TRUE		
16	4.8 mm	4.8	0.189	04/16/18	Monday, April 16, 2018	0.189	1.00	Considered in CO	
17	0 mm	0	0.000	04/17/18	Tuesday, April 17, 2018	0	-		
18	5.6 mm	5.6	0.220	04/18/18	Wednesday, April 18, 2018	0.22	1.00	Considered in CO	
19	2.3 mm	2.3	0.091	04/19/18	Thursday, April 19, 2018	0.091	-		
20	0 mm	0	0.000	04/20/18	Friday, April 20, 2018	0	-		
21	8.4 mm	8.4	0.331	04/21/18	Saturday, April 21, 2018	TRUE	TRUE		
22	0.8 mm	0.8	0.031	04/22/18	Sunday, April 22, 2018	TRUE	TRUE		
23	0.8 mm	0.8	0.031	04/23/18	Monday, April 23, 2018	0.031	-		
24	0 mm	0	0.000	04/24/18	Tuesday, April 24, 2018	0	-		
25	0.8 mm	0.8	0.031	04/25/18	Wednesday, April 25, 2018	0.031	-		
26	7.1 mm	7.1	0.280	04/26/18	Thursday, April 26, 2018	0.28	1.00		
27	9.7 mm	9.7	0.382	04/27/18	Friday, April 27, 2018	0.382	1.00		
28	18.5 mm	18.5	0.728	04/28/18	Saturday, April 28, 2018	TRUE	TRUE		
29	2.3 mm	2.3	0.091	04/29/18	Sunday, April 29, 2018	TRUE	TRUE		
30	1.3 mm	1.3	0.051	04/30/18	Monday, April 30, 2018	0.051	-		

2018	Precip. Accum.							Table 2	
May	Sum	MM	INCH				ACTUAL WEEK DAYS ABOVE AVE.	8.00	
1	13 mm	13	0.512	05/1/18	Tuesday, May 01, 2018	0.512	1.00		
2	0 mm	0	0.000	05/2/18	Wednesday, May 02, 2018	0	-		
3	2.8 mm	2.8	0.110	05/3/18	Thursday, May 03, 2018	0.11	-		
4	1.3 mm	1.3	0.051	05/4/18	Friday, May 04, 2018	0.051	-		
5	0 mm	0	0.000	05/5/18	Saturday, May 05, 2018	TRUE	TRUE		
6	0 mm	0	0.000	05/6/18	Sunday, May 06, 2018	TRUE	TRUE		
7	0 mm	0	0.000	05/7/18	Monday, May 07, 2018	0	-		
8	2.3 mm	2.3	0.091	05/8/18	Tuesday, May 08, 2018	0.091	-		
9	1.3 mm	1.3	0.051	05/9/18	Wednesday, May 09, 2018	0.051	-		
10	0.3 mm	0.3	0.012	05/10/18	Thursday, May 10, 2018	0.012	-		
11	6.1 mm	6.1	0.240	05/11/18	Friday, May 11, 2018	0.24	1.00		
12	0.3 mm	0.3	0.012	05/12/18	Saturday, May 12, 2018	TRUE	TRUE		
13	0 mm	0	0.000	05/13/18	Sunday, May 13, 2018	TRUE	TRUE		
14	9.4 mm	9.4	0.370	05/14/18	Monday, May 14, 2018	0.37	1.00		
15	3 mm	3	0.118	05/15/18	Tuesday, May 15, 2018	0.118	-		
16	18.3 mm	18.3	0.720	05/16/18	Wednesday, May 16, 2018	0.72	1.00		
17	2.3 mm	2.3	0.091	05/17/18	Thursday, May 17, 2018	0.091	-		
18	1.3 mm	1.3	0.051	05/18/18	Friday, May 18, 2018	0.051	-		
19	1.5 mm	1.5	0.059	05/19/18	Saturday, May 19, 2018	TRUE	TRUE		
20	1.3 mm	1.3	0.051	05/20/18	Sunday, May 20, 2018	TRUE	TRUE		
21	20.8 mm	20.8	0.819	05/21/18	Monday, May 21, 2018	0.819	1.00		
22	38.6 mm	38.6	1.520	05/22/18	Tuesday, May 22, 2018	1.52	1.00		
23	6.6 mm	6.6	0.260	05/23/18	Wednesday, May 23, 2018	0.26	1.00		
24	0.3 mm	0.3	0.012	05/24/18	Thursday, May 24, 2018	0.012	-		
25	0.3 mm	0.3	0.012	05/25/18	Friday, May 25, 2018	0.012	-		
26	0.8 mm	0.8	0.031	05/26/18	Saturday, May 26, 2018	TRUE	TRUE		
27	0 mm	0	0.000	05/27/18	Sunday, May 27, 2018	TRUE	TRUE		
28	2.3 mm	2.3	0.091	05/28/18	Monday, May 28, 2018	0.091	-	Memorial Day Holiday	
29	4.1 mm	4.1	0.161	05/29/18	Tuesday, May 29, 2018	0.161	1.00		
30	0 mm	0	0.000	05/30/18	Wednesday, May 30, 2018	0	-		
31	1.5 mm	1.5	0.059	05/31/18	Thursday, May 31, 2018	0.059	-		

2018	Precip. Accum.							Table 2
Jun	Sum	MM	INCH				ACTUAL WEEK DAYS ABOVE AVE.	5.00
1	1 mm	1	0.039	06/1/18	Friday, June 01, 2018	0.039	-	
2	0.3 mm	0.3	0.012	06/2/18	Saturday, June 02, 2018	TRUE	TRUE	
3	8.9 mm	8.9	0.350	06/3/18	Sunday, June 03, 2018	TRUE	TRUE	
4	13.5 mm	13.5	0.531	06/4/18	Monday, June 04, 2018	0.531	-	
5	43.9 mm	43.9	1.728	06/5/18	Tuesday, June 05, 2018	1.728	1.00	
6	0 mm	0	0.000	06/6/18	Wednesday, June 06, 2018	0	-	
7	0.8 mm	0.8	0.031	06/7/18	Thursday, June 07, 2018	0.031	-	
8	18 mm	18	0.709	06/8/18	Friday, June 08, 2018	0.709	1.00	
9	6.3 mm	6.3	0.248	06/9/18	Saturday, June 09, 2018	TRUE	TRUE	
10	1.8 mm	1.8	0.071	06/10/18	Sunday, June 10, 2018	TRUE	TRUE	
11	7.1 mm	7.1	0.280	06/11/18	Monday, June 11, 2018	0.28	1.00	
12	1 mm	1	0.039	06/12/18	Tuesday, June 12, 2018	0.039	-	
13	0 mm	0	0.000	06/13/18	Wednesday, June 13, 2018	0	-	
14	0.3 mm	0.3	0.012	06/14/18	Thursday, June 14, 2018	0.012	-	
15	0 mm	0	0.000	06/15/18	Friday, June 15, 2018	0	-	
16	1 mm	1	0.039	06/16/18	Saturday, June 16, 2018	TRUE	TRUE	
17	0 mm	0	0.000	06/17/18	Sunday, June 17, 2018	TRUE	TRUE	
18	0 mm	0	0.000	06/18/18	Monday, June 18, 2018	0	-	
19	3 mm	3	0.118	06/19/18	Tuesday, June 19, 2018	0.118	-	
20	4.6 mm	4.6	0.181	06/20/18	Wednesday, June 20, 2018	0.181	-	
21	5.8 mm	5.8	0.228	06/21/18	Thursday, June 21, 2018	0.228	-	
22	0.5 mm	0.5	0.020	06/22/18	Friday, June 22, 2018	0.02	-	
23	0.3 mm	0.3	0.012	06/23/18	Saturday, June 23, 2018	TRUE	TRUE	
24	0 mm	0	0.000	06/24/18	Sunday, June 24, 2018	TRUE	TRUE	
25	0 mm	0	0.000	06/25/18	Monday, June 25, 2018	0	-	
26	6.6 mm	6.6	0.260	06/26/18	Tuesday, June 26, 2018	0.26	1.00	
27	19 mm	19	0.748	06/27/18	Wednesday, June 27, 2018	0.748	1.00	
28	3.3 mm	3.3	0.130	06/28/18	Thursday, June 28, 2018	0.13	-	
29	0 mm	0	0.000	06/29/18	Friday, June 29, 2018	0	-	
30	4.1 mm	4.1	0.161	06/30/18	Saturday, June 30, 2018	TRUE	TRUE	

2018	Precip. Accum.							Table 2	
Jul	Sum	MM	INCH				ACTUAL WEEK DAYS ABOVE AVE.	4.00	
1	2.5 mm	2.5	0.098	07/1/18	Sunday, July 01, 2018	TRUE	TRUE		
2	0.3 mm	0.3	0.012	07/2/18	Monday, July 02, 2018	0.012	-		
3	4.8 mm	4.8	0.189	07/3/18	Tuesday, July 03, 2018	0.189	-		
4	22.1 mm	22.1	0.870	07/4/18	Wednesday, July 04, 2018	0.87	1.00	Fourth of July Holiday	
5	47.5 mm	47.5	1.870	07/5/18	Thursday, July 05, 2018	1.87	1.00		
6	46.7 mm	46.7	1.839	07/6/18	Friday, July 06, 2018	1.839	1.00		
7	5.6 mm	5.6	0.220	07/7/18	Saturday, July 07, 2018	TRUE	TRUE		
8	15.2 mm	15.2	0.598	07/8/18	Sunday, July 08, 2018	TRUE	TRUE		
9	0.3 mm	0.3	0.012	07/9/18	Monday, July 09, 2018	0.012	-		
10	2.3 mm	2.3	0.091	07/10/18	Tuesday, July 10, 2018	0.091	-		
11	7.4 mm	7.4	0.291	07/11/18	Wednesday, July 11, 2018	0.291	-		
12	10.4 mm	10.4	0.409	07/12/18	Thursday, July 12, 2018	0.409	1.00		
13	7.1 mm	7.1	0.280	07/13/18	Friday, July 13, 2018	0.28	-		
14	5.1 mm	5.1	0.201	07/14/18	Saturday, July 14, 2018	TRUE	TRUE		
15	0.3 mm	0.3	0.012	07/15/18	Sunday, July 15, 2018	TRUE	TRUE		
16	13.5 mm	13.5	0.531	07/16/18	Monday, July 16, 2018	0.531	1.00		
17	2 mm	2	0.079	07/17/18	Tuesday, July 17, 2018	0.079	-		
18	0 mm	0	0.000	07/18/18	Wednesday, July 18, 2018	0	-		
19	3.8 mm	3.8	0.150	07/19/18	Thursday, July 19, 2018	0.15	-		
20	30.7 mm	30.7	1.209	07/20/18	Friday, July 20, 2018	1.209	1.00	Liberation Day, Holiday	
21	6.6 mm	6.6	0.260	07/21/18	Saturday, July 21, 2018	TRUE	TRUE		
22	7.6 mm	7.6	0.299	07/22/18	Sunday, July 22, 2018	TRUE	TRUE		
23	0.8 mm	0.8	0.031	07/23/18	Monday, July 23, 2018	0.031	-		
24	3 mm	3	0.118	07/24/18	Tuesday, July 24, 2018	0.118	-		
25	0 mm	0	0.000	07/25/18	Wednesday, July 25, 2018	0	-		
26	7.9 mm	7.9	0.311	07/26/18	Thursday, July 26, 2018	0.311	-		
27	0 mm	0	0.000	07/27/18	Friday, July 27, 2018	0	-		
30	0.8 mm	0.8	0.031	07/30/18	Monday, July 30, 2018	0.031	-		
31	4.3 mm	4.3	0.169	07/31/18	Tuesday, July 31, 2018	0.169	-		
30	4.1 mm	4.1	0.161	07/30/18	Monday, July 30, 2018	0.161	-		

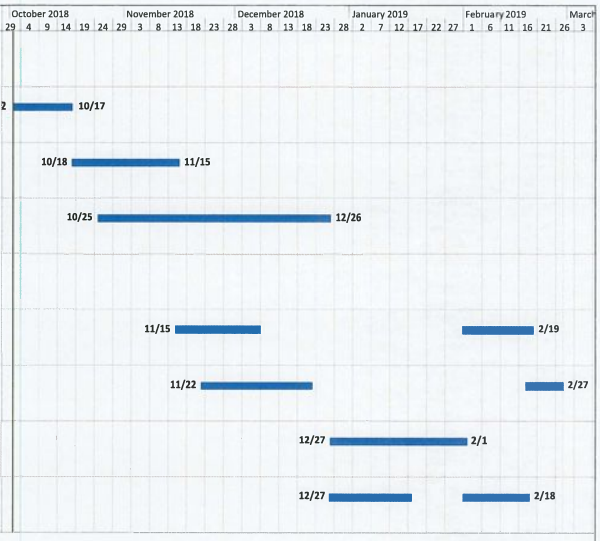
2018	Precip. Accum.						Table 2	
Aug	Sum	MM	INCH				ACTUAL WEEK DAYS ABOVE AVE.	8.00
1	19.6 mm	19.6	0.772	08/1/18	Wednesday, August 01, 2018	0.772	1.00	
2	40.1 mm	40.1	1.579	08/2/18	Thursday, August 02, 2018	1.579	1.00	
3	5.6 mm	5.6	0.220	08/3/18	Friday, August 03, 2018	0.22	-	
4	32.8 mm	32.8	1.291	08/4/18	Saturday, August 04, 2018	TRUE	TRUE	
5	3.8 mm	3.8	0.150	08/5/18	Sunday, August 05, 2018	TRUE	TRUE	
6	6.3 mm	6.3	0.248	08/6/18	Monday, August 06, 2018	0.248	-	
7	0 mm	0	0.000	08/7/18	Tuesday, August 07, 2018	0	-	
8	0 mm	0	0.000	08/8/18	Wednesday, August 08, 2018	0	-	
9	7.6 mm	7.6	0.299	08/9/18	Thursday, August 09, 2018	0.299	-	
10	0 mm	0	0.000	08/10/18	Friday, August 10, 2018	0	-	
11	0.3 mm	0.3	0.012	08/11/18	Saturday, August 11, 2018	TRUE	TRUE	
12	3.3 mm	3.3	0.130	08/12/18	Sunday, August 12, 2018	TRUE	TRUE	
13	5.8 mm	5.8	0.228	08/13/18	Monday, August 13, 2018	0.228	-	
14	16.3 mm	16.3	0.642	08/14/18	Tuesday, August 14, 2018	0.642	1.00	
15	8.9 mm	8.9	0.350	08/15/18	Wednesday, August 15, 2018	0.35	-	
16	62 mm	62	2.441	08/16/18	Thursday, August 16, 2018	2.441	1.00	
17	2 mm	2	0.079	08/17/18	Friday, August 17, 2018	0.079	-	
18	2.8 mm	2.8	0.110	08/18/18	Saturday, August 18, 2018	TRUE	TRUE	
19	50.3 mm	50.3	1.980	08/19/18	Sunday, August 19, 2018	TRUE	TRUE	
20	33.5 mm	33.5	1.319	08/20/18	Monday, August 20, 2018	1.319	1.00	
21	83.1 mm	83.1	3.272	08/21/18	Tuesday, August 21, 2018	3.272	1.00	
22	16 mm	16	0.630	08/22/18	Wednesday, August 22, 2018	0.63	1.00	
23	1.5 mm	1.5	0.059	08/23/18	Thursday, August 23, 2018	0.059	-	
24	4.8 mm	4.8	0.189	08/24/18	Friday, August 24, 2018	0.189	-	
25	0 mm	0	0.000	08/25/18	Saturday, August 25, 2018	TRUE	TRUE	
26	0 mm	0	0.000	08/26/18	Sunday, August 26, 2018	TRUE	TRUE	
27	44.2 mm	44.2	1.740	08/27/18	Monday, August 27, 2018	1.74	1.00	
28	0.3 mm	0.3	0.012	08/28/18	Tuesday, August 28, 2018	0.012	-	
29	1.3 mm	1.3	0.051	08/29/18	Wednesday, August 29, 2018	0.051	-	
30	0.3 mm	0.3	0.012	08/30/18	Thursday, August 30, 2018	0.012	-	
31	7.1 mm	7.1	0.280	08/31/18	Friday, August 31, 2018	0.28	-	

2018	Precip. Accum.						Table 2	
Sep	Sum	MM	INCH				ACTUAL WEEK DAYS ABOVE AVE.	9.00
1	10.7 mm	10.7	0.421	09/1/18	Saturday, September 01, 2018	TRUE	TRUE	
2	0 mm	0	0.000	09/2/18	Sunday, September 02, 2018	TRUE	TRUE	
3	1.3 mm	1.3	0.051	09/3/18	Monday, September 03, 2018	0.051	-	Labor Day Holiday
4	1.3 mm	1.3	0.051	09/4/18	Tuesday, September 04, 2018	0.051	-	
5	0 mm	0	0.000	09/5/18	Wednesday, September 05, 2018	0	-	
6	24.4 mm	24.4	0.961	09/6/18	Thursday, September 06, 2018	0.961	1.00	
7	2.5 mm	2.5	0.098	09/7/18	Friday, September 07, 2018	0.098	-	
8	9.4 mm	9.4	0.370	09/8/18	Saturday, September 08, 2018	TRUE	TRUE	
9	0.3 mm	0.3	0.012	09/9/18	Sunday, September 09, 2018	TRUE	TRUE	
10	0.3 mm	0.3	0.012	09/10/18	Monday, September 10, 2018	0.012	1.00	Typhoon Mangkut
11	12.4 mm	12.4	0.488	09/11/18	Tuesday, September 11, 2018	0.488	1.00	Typhoon Mangkut
12	0 mm	0	0.000	09/12/18	Wednesday, September 12, 2018	0	1.00	Recovery -Typhoon Mangkut
13	32 mm	32	1.260	09/13/18	Thursday, September 13, 2018	1.26	1.00	
14	8.9 mm	8.9	0.350	09/14/18	Friday, September 14, 2018	0.35	-	
15	2.5 mm	2.5	0.098	09/15/18	Saturday, September 15, 2018	TRUE	TRUE	
16	1.3 mm	1.3	0.051	09/16/18	Sunday, September 16, 2018	TRUE	TRUE	
17	10.9 mm	10.9	0.429	09/17/18	Monday, September 17, 2018	0.429	-	
18	3.3 mm	3.3	0.130	09/18/18	Tuesday, September 18, 2018	0.13	-	
19	3 mm	3	0.118	09/19/18	Wednesday, September 19, 2018	0.118	-	
20	3.6 mm	3.6	0.142	09/20/18	Thursday, September 20, 2018	0.142	1.00	
21	19 mm	19	0.748	09/21/18	Friday, September 21, 2018	0.748	1.00	
22	38.1 mm	38.1	1.500	09/22/18	Saturday, September 22, 2018	TRUE	TRUE	
23	0.5 mm	0.5	0.020	09/23/18	Sunday, September 23, 2018	TRUE	TRUE	
24	0 mm	0	0.000	09/24/18	Monday, September 24, 2018	0	-	
25	33.8 mm	33.8	1.331	09/25/18	Tuesday, September 25, 2018	1.331	1.00	
26	0 mm	0	0.000	09/26/18	Wednesday, September 26, 2018	0	-	
27	25.7 mm	25.7	1.012	09/27/18	Thursday, September 27, 2018	1.012	1.00	
28	0 mm	0	0.000	09/28/18	Friday, September 28, 2018	0	-	
29	0 mm	0	0.000	09/29/18	Saturday, September 29, 2018	TRUE	TRUE	

ATTACHMENT 4

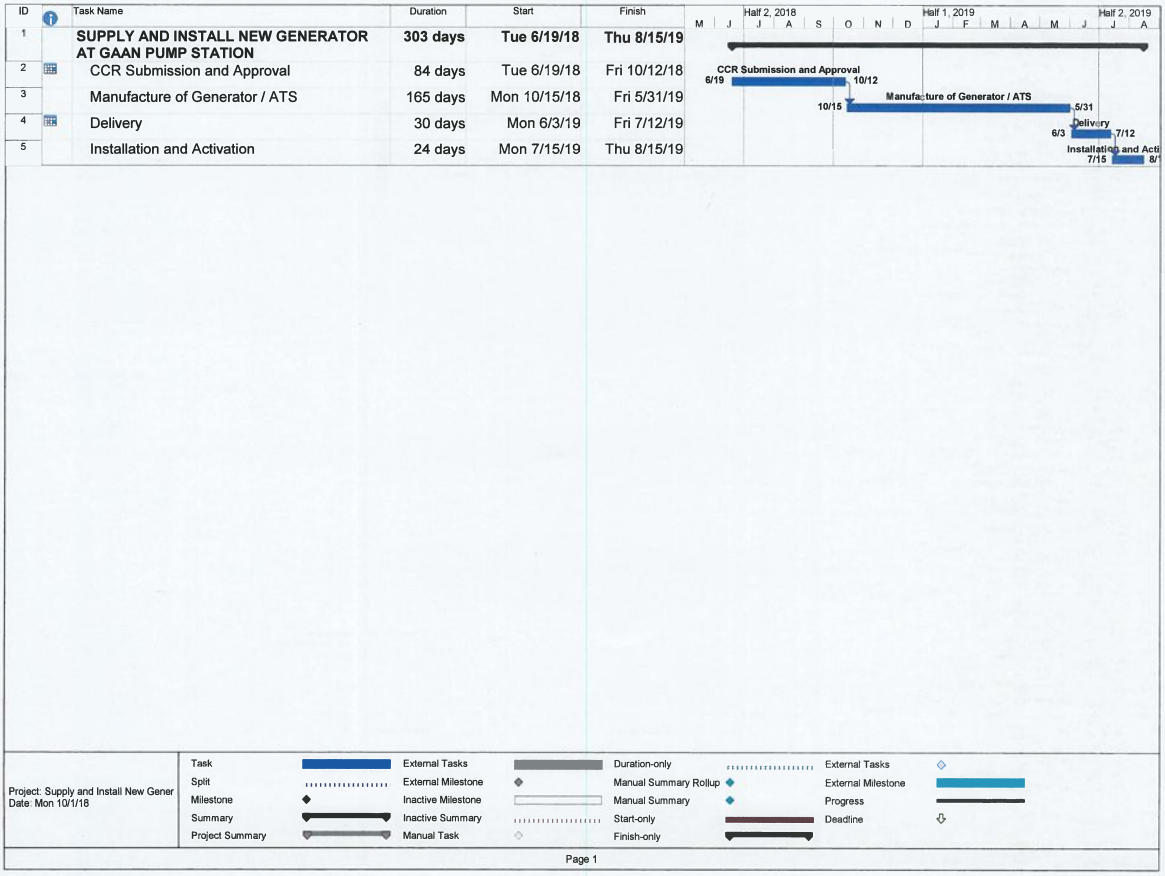
Doc. No. 34GL-18-2583. *

ID	Task Name	Start	Finish
1220	**Lightning Protection and Surge Protection**	**Tue 10/2/18**	**Wed 2/27/19**
1221	Submission and Approval	Tue 10/2/18	Wed 10/17/18
1222	Shop Drawing and Approval	Thu 10/18/18	Thu 11/15/18
1223	Procurement and Delivery	Thu 10/25/18	Wed 12/26/18
1224	**Installation:**	**Thu 11/15/18**	**Wed 2/27/19**
1225	Tipalao	Thu 11/15/18	Tue 2/19/19
1226	UV	Thu 11/22/18	Wed 2/27/19
1227	Head Works	Thu 12/27/18	Fri 2/1/19
1228	Gaan PUMP STATION	Thu 12/27/18	Mon 2/18/19



Tue 10/2/18
Page 1 of 1

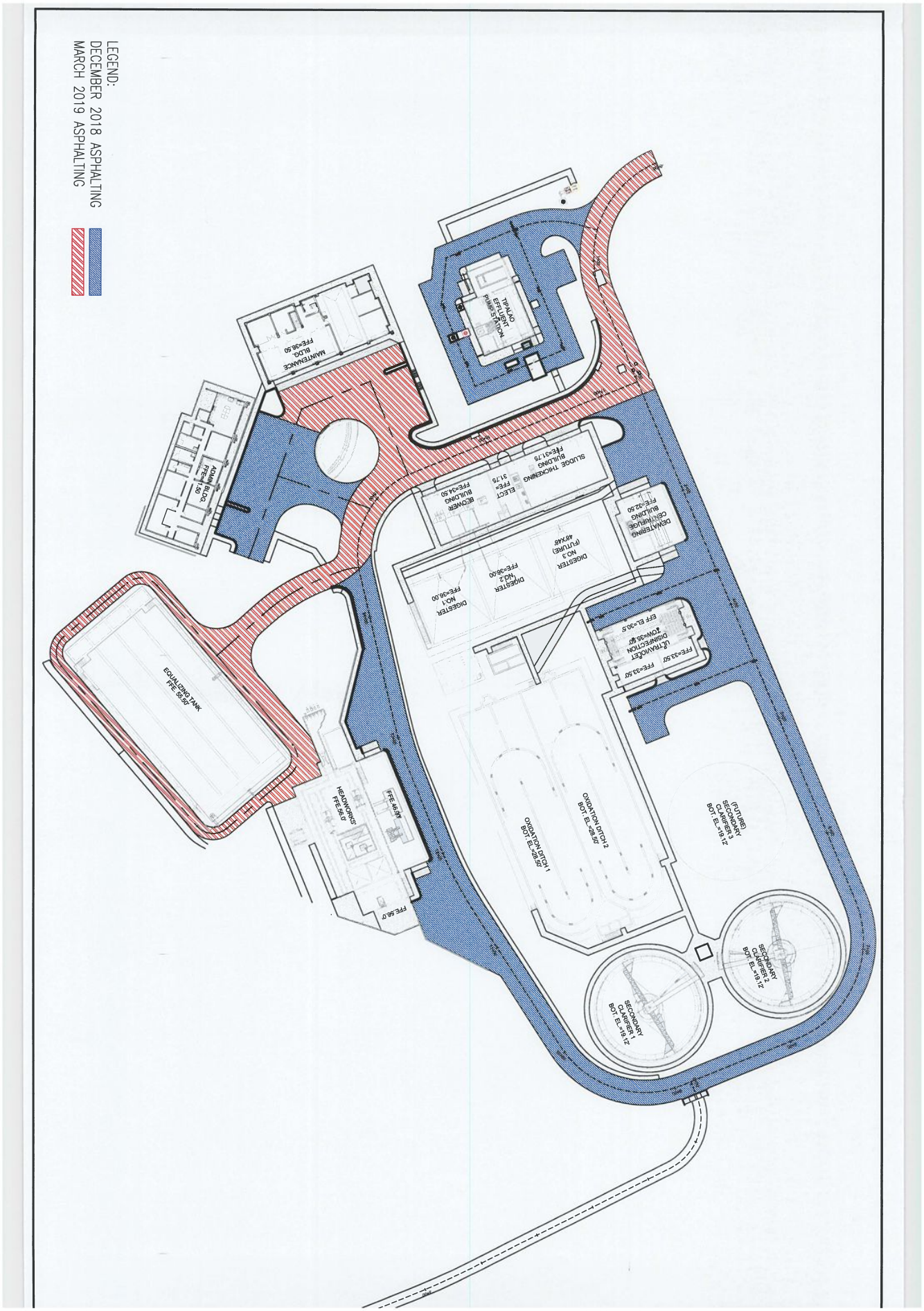
Agat Santa Rita Waste Water Treatment Plant Replacement Project



ID	Task Name	Duration	Start	Finish
1	**SUPPLY AND INSTALL NEW GENERATOR AT GAAN PUMP STATION**	**303 days**	**Tue 6/19/18**	**Thu 8/15/19**
2	CCR Submission and Approval	84 days	Tue 6/19/18	Fri 10/12/18
3	Manufacture of Generator / ATS	165 days	Mon 10/15/18	Fri 5/31/19
4	Delivery	30 days	Mon 6/3/19	Fri 7/12/19
5	Installation and Activation	24 days	Mon 7/15/19	Thu 8/15/19

ATTACHMENT 5

Doc. No. 34GL-18-2583. *

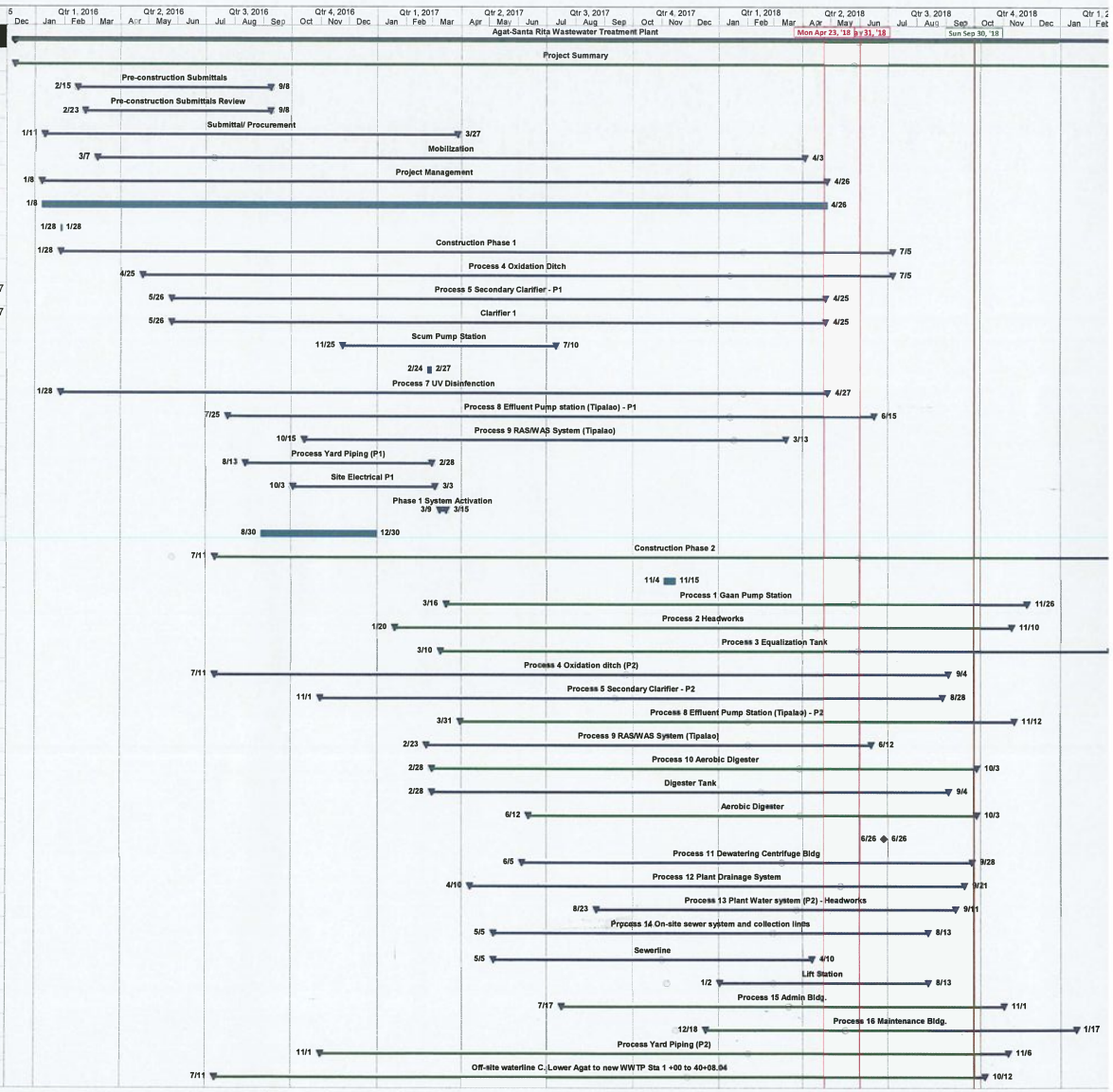


Doc. No. 34GL-18-2583. *

ATTACHMENT 6

SUMITOMO MITSUI CONSTRUCTION CO.,LTD.

ID	Activity Code	Task Name	% Complete	Start	Finish	Duration	Baseline4 Start	Baseline4 Finish
1		Agat-Santa Rita Wastewater Treatment Plant	93%					
2		Project Summary	99%	Thu 12/10/15	Fri 3/22/19	1028 days	Thu 12/10/15	Fri 5/25/18
13		Pre-construction Submittals	100%	Mon 2/15/16	Thu 9/8/16	178 days	Mon 2/15/16	Thu 9/8/16
31		Pre-construction Submittals Review	100%	Tue 2/23/16	Thu 9/8/16	171 days	Tue 2/23/16	Thu 9/8/16
48		Submittal/ Procurement	100%	Mon 1/11/16	Mon 3/27/17	379 days	Mon 1/11/16	Mon 3/27/17
129		Mobilization	100%	Mon 3/7/16	Tue 4/3/18	649.4 days	Mon 3/7/16	Sat 7/9/16
140		Project Management	100%	Fri 1/8/16	Thu 4/26/18	720 days	Fri 1/8/16	Thu 11/30/17
141	MOB200	Project Management and Coordination	100%	Fri 1/8/16	Thu 4/26/18	720 days	Fri 1/8/16	Thu 11/30/17
142	MOB201	Staff visa and process	100%	Thu 1/28/16	Thu 1/28/16	1 day	Thu 1/28/16	Thu 1/28/16
143		Construction Phase 1	100%	Thu 1/28/16	Thu 7/5/18	763 days	Thu 1/28/16	Fri 1/26/18
144		Process 4 Oxidation Ditch	100%	Mon 4/25/16	Thu 7/5/18	688 days	Mon 4/25/16	Fri 1/12/18
315		Process 5 Secondary Clarifier - P1	100%	Thu 5/26/16	Wed 4/25/18	600 days	Thu 5/26/16	Wed 12/20/17
316		Clarifier 1	100%	Thu 5/26/16	Wed 4/25/18	600 days	Thu 5/26/16	Wed 12/20/17
375		Scum Pump Station	100%	Fri 11/25/16	Mon 7/10/17	195 days	Fri 11/25/16	Mon 7/10/17
392	CLA910	Clarifier 1 System Testing	100%	Fri 2/24/17	Mon 2/27/17	3 days	Fri 2/24/17	Mon 2/27/17
393		Process 7 UV Disinfenction	100%	Thu 1/28/16	Fri 4/27/18	704 days	Thu 1/28/16	Fri 1/26/18
466		Process 8 Effluent Pump station (Tipalao) - P1	100%	Mon 7/25/16	Fri 6/15/18	593 days	Mon 7/25/16	Fri 1/12/18
480		Process 9 RAS/WAS System (Tipalao)	100%	Sat 10/15/16	Tue 3/13/18	441 days	Sat 10/15/16	Tue 1/16/18
493		Process Yard Piping (P1)	100%	Sat 8/13/16	Tue 2/28/17	170.94 days	Sat 8/13/16	Tue 2/28/17
560		Site Electrical P1	100%	Mon 10/3/16	Fri 3/3/17	131 days	Mon 10/3/16	Fri 3/3/17
566		Phase 1 System Activation	100%	Thu 3/9/17	Wed 3/15/17	6 days	Thu 3/9/17	Wed 3/15/17
569	PSA020	Change Order 1	100%	Tue 8/30/16	Fri 12/30/16	106 days	Tue 8/30/16	Fri 12/30/16
570	CHO001(	Construction Phase 2	89%	Mon 7/11/16	Fri 3/22/19	845 days	Thu 5/26/16	Wed 5/30/18
571	RCLC01(	Relocate Temporary Office	100%	Sat 11/4/17	Wed 11/15/17	10 days	Sat 11/4/17	Wed 11/15/17
572		Process 1 Gaan Pump Station	85%	Thu 3/16/17	Mon 11/26/18	531.85 days	Thu 3/16/17	Fri 5/25/18
622		Process 2 Headworks	95%	Fri 1/20/17	Sat 11/10/18	565.15 days	Fri 1/20/17	Sat 4/14/18
705		Process 3 Equalization Tank	61%	Fri 3/10/17	Fri 2/22/19	613 days	Fri 3/10/17	Wed 5/30/18
795		Process 4 Oxidation ditch (P2)	100%	Mon 7/11/16	Tue 9/4/18	673.1 days	Mon 7/11/16	Sat 9/23/17
875		Process 5 Secondary Clarifier - P2	100%	Tue 11/1/16	Tue 8/28/18	571 days	Tue 11/1/16	Mon 9/11/17
928		Process 8 Effluent Pump Station (Tipalao) - P2	88%	Fri 3/31/17	Mon 11/12/18	507 days	Fri 3/31/17	Wed 1/31/18
946		Process 9 RAS/WAS System (Tipalao)	100%	Thu 2/23/17	Tue 6/12/18	407 days	Thu 2/23/17	Wed 1/31/18
960		Process 10 Aerobic Digester	99%	Tue 2/28/17	Wed 10/3/18	499.06 days	Tue 2/28/17	Wed 3/28/18
961		Digester Tank	100%	Tue 2/28/17	Tue 9/4/18	473.56 days	Tue 2/28/17	Wed 2/14/18
1004		Aerobic Digester	99%	Mon 6/12/17	Wed 10/3/18	411 days	Mon 6/12/17	Wed 3/28/18
1054	AD900	Aerobic Digester System Testing	100%	Tue 6/26/18	Tue 6/26/18	0 days	Sat 3/24/18	Sat 3/24/18
1055		Process 11 Dewatering Centrifuge Bldg	100%	Mon 6/5/17	Fri 9/28/18	413 days	Mon 6/5/17	Fri 3/9/18
1112		Process 12 Plant Drainage System	100%	Mon 4/10/17	Fri 9/21/18	454.25 days	Mon 4/10/17	Fri 5/11/18
1116		Process 13 Plant Water system (P2) - Headworks	100%	Wed 8/23/17	Tue 9/11/18	330 days	Wed 8/23/17	Sat 3/24/18
1135		Process 14 On-site sewer system and collection lines	100%	Fri 5/5/17	Mon 8/13/18	398.6 days	Fri 5/5/17	Tue 2/27/18
1136		Sewerline	100%	Fri 5/5/17	Tue 4/10/18	292 days	Fri 5/5/17	Tue 10/31/17
1142		Lift Station	100%	Tue 1/2/18	Mon 8/13/18	191.6 days	Mon 11/6/17	Tue 2/27/18
1155		Process 15 Admin Bldg.	95%	Mon 7/17/17	Thu 11/1/18	406 days	Mon 7/17/17	Fri 3/16/18
1212		Process 16 Maintenance Bldg.	60%	Mon 12/18/17	Thu 1/17/19	340 days	Thu 11/16/17	Wed 5/16/18
1283		Process Yard Piping (P2)	96%	Tue 11/1/16	Tue 11/6/18	630.5 days	Tue 11/1/16	Wed 1/31/18
1330		Off-site waterline C. Lower Agat to new WWTP Sta 1 +00 to 40+08.04	99%	Mon 7/11/16	Fri 10/12/18	706.5 days	Mon 7/11/16	Mon 11/27/17



AGAT SANTA RITA WASTEWATER TREATMENT REPLACEMENT PROJECT
Mon 10/8/18 /ASWW TPR Schedule Updated September 2018.18-09-30 Dec.31 BL
Page 1 of 2

Baseline Milestone ◇ baseline 4 updated Oct. 31, 2017
Baseline Summary baseline 4 - updated Oct. 31, 2017

Task Milestone Project Summary Critical Split Manual Progress
Task Completed Summary Critical progress Baseline

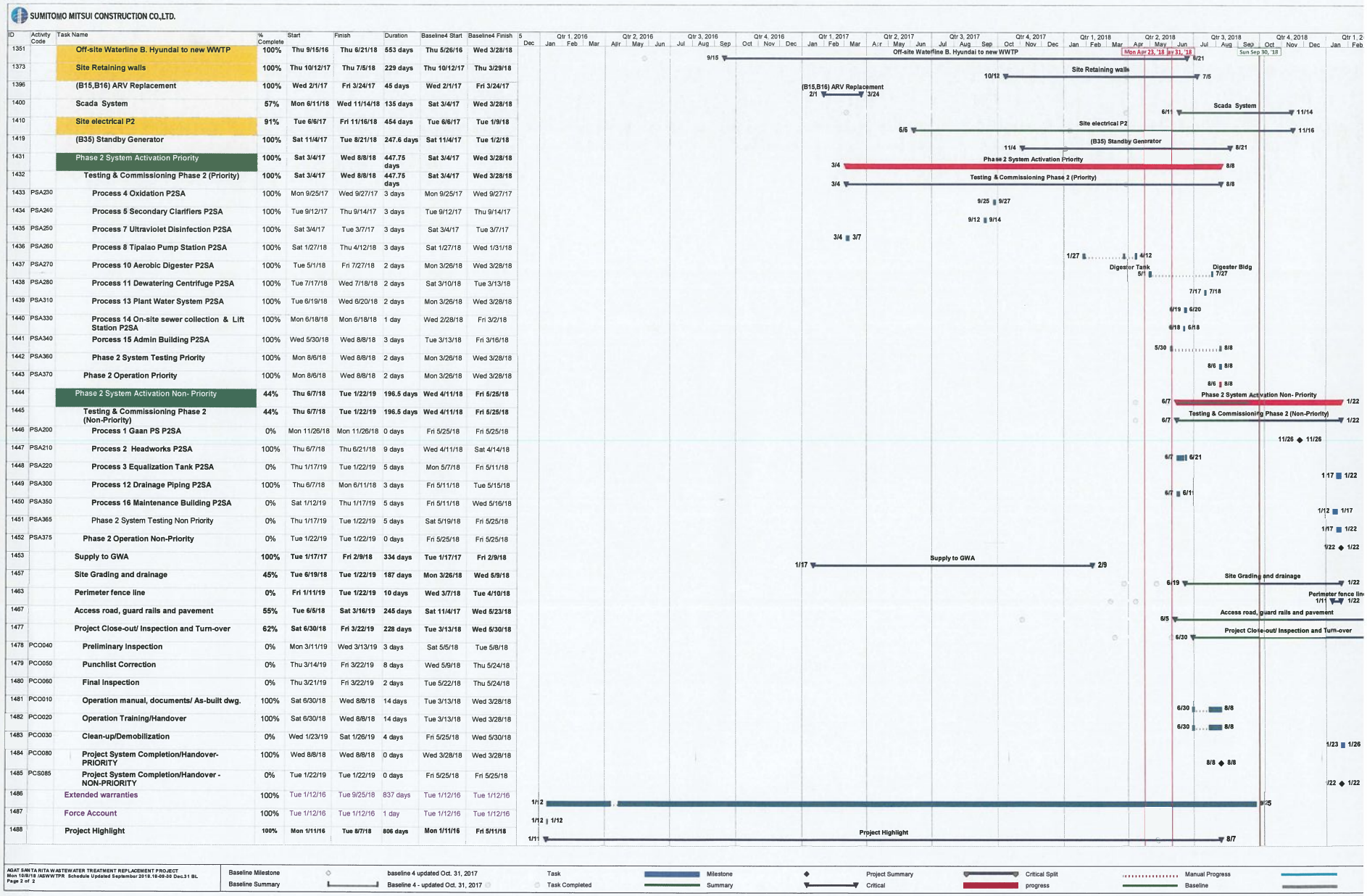

SUMITOMO MITSUI CONSTRUCTION CO.,LTD.
ID | Activity Code | Task Name | % Complete | Start | Finish | Duration | Baseline4 Start | Baseline4 Finish
1351 Off-site Waterline B. Hyundai to new WWTP 100% Thu 9/15/16 Thu 6/21/18 553 days Thu 5/26/16 Wed 3/28/18
1373 Site Retaining walls 100% Thu 10/12/17 Thu 7/5/18 229 days Thu 10/12/17 Thu 3/29/18
1396 (B15,B16) ARV Replacement 100% Wed 2/1/17 Fri 3/24/17 45 days Wed 2/1/17 Fri 3/24/17
1400 Scada System 57% Mon 6/11/18 Wed 11/14/18 135 days Sat 3/4/17 Wed 3/28/18
1410 Site electrical P2 91% Tue 6/6/17 Fri 11/16/18 454 days Tue 6/6/17 Tue 1/9/18
1419 (B35) Standby Generator 100% Sat 11/4/17 Tue 8/21/18 247.6 days Sat 11/4/17 Tue 1/2/18
1431 Phase 2 System Activation Priority 100% Sat 3/4/17 Wed 8/8/18 447.75 days Sat 3/4/17 Wed 3/28/18
1432 Testing & Commissioning Phase 2 (Priority) 100% Sat 3/4/17 Wed 8/8/18 447.75 days Sat 3/4/17 Wed 3/28/18
1433 PSA230 Process 4 Oxidation P2SA 100% Mon 9/25/17 Wed 9/27/17 3 days Mon 9/25/17 Wed 9/27/17
1434 PSA240 Process 5 Secondary Clarifiers P2SA 100% Tue 9/12/17 Thu 9/14/17 3 days Tue 9/12/17 Thu 9/14/17
1435 PSA250 Process 7 Ultraviolet Disinfection P2SA 100% Sat 3/4/17 Tue 3/7/17 3 days Sat 3/4/17 Tue 3/7/17
1436 PSA260 Process 8 Tipalao Pump Station P2SA 100% Sat 1/27/18 Thu 4/12/18 3 days Sat 1/27/18 Wed 1/31/18
1437 PSA270 Process 10 Aerobic Digester P2SA 100% Tue 5/1/18 Fri 7/27/18 2 days Mon 3/26/18 Wed 3/28/18
1438 PSA280 Process 11 Dewatering Centrifuge P2SA 100% Tue 7/17/18 Wed 7/18/18 2 days Sat 3/10/18 Tue 3/13/18
1439 PSA310 Process 13 Plant Water System P2SA 100% Tue 6/19/18 Wed 6/20/18 2 days Mon 3/26/18 Wed 3/28/18
1440 PSA330 Process 14 On-site sewer collection & Lift Station P2SA 100% Mon 6/18/18 Mon 6/18/18 1 day Wed 2/28/18 Fri 3/2/18
1441 PSA340 Porcess 15 Admin Building P2SA 100% Wed 5/30/18 Wed 8/8/18 3 days Tue 3/13/18 Fri 3/16/18
1442 PSA360 Phase 2 System Testing Priority 100% Mon 8/6/18 Wed 8/8/18 2 days Mon 3/26/18 Wed 3/28/18
1443 PSA370 Phase 2 Operation Priority 100% Mon 8/6/18 Wed 8/8/18 2 days Mon 3/26/18 Wed 3/28/18
1444 Phase 2 System Activation Non- Priority 44% Thu 6/7/18 Tue 1/22/19 196.5 days Wed 4/11/18 Fri 5/25/18
1445 Testing & Commissioning Phase 2 (Non-Priority) 44% Thu 6/7/18 Tue 1/22/19 196.5 days Wed 4/11/18 Fri 5/25/18
1446 PSA200 Process 1 Gaan PS P2SA 0% Mon 11/26/18 Mon 11/26/18 0 days Fri 5/25/18 Fri 5/25/18
1447 PSA210 Process 2 Headworks P2SA 100% Thu 6/7/18 Thu 6/21/18 9 days Wed 4/11/18 Sat 4/14/18
1448 PSA220 Process 3 Equalization Tank P2SA 0% Thu 1/17/19 Tue 1/22/19 5 days Mon 5/7/18 Fri 5/11/18
1449 PSA300 Process 12 Drainage Piping P2SA 100% Thu 6/7/18 Mon 6/11/18 3 days Fri 5/11/18 Tue 5/15/18
1450 PSA350 Process 16 Maintenance Building P2SA 0% Sat 1/12/19 Thu 1/17/19 5 days Fri 5/11/18 Wed 5/16/18
1451 PSA365 Phase 2 System Testing Non Priority 0% Thu 1/17/19 Tue 1/22/19 5 days Sat 5/19/18 Fri 5/25/18
1452 PSA375 Phase 2 Operation Non-Priority 0% Tue 1/22/19 Tue 1/22/19 0 days Fri 5/25/18 Fri 5/25/18
1453 Supply to GWA 100% Tue 1/17/17 Fri 2/9/18 334 days Tue 1/17/17 Fri 2/9/18
1457 Site Grading and drainage 45% Tue 6/19/18 Tue 1/22/19 187 days Mon 3/26/18 Wed 5/9/18
1463 Perimeter fence line 0% Fri 1/11/19 Tue 1/22/19 10 days Wed 3/7/18 Tue 4/10/18
1467 Access road, guard rails and pavement 55% Tue 6/5/18 Sat 3/16/19 245 days Sat 11/4/17 Wed 5/23/18
1477 Project Close-out/ Inspection and Turn-over 62% Sat 6/30/18 Fri 3/22/19 228 days Tue 3/13/18 Wed 5/30/18
1478 PCO040 Preliminary Inspection 0% Mon 3/11/19 Wed 3/13/19 3 days Sat 5/5/18 Tue 5/8/18
1479 PCO050 Punchlist Correction 0% Thu 3/14/19 Fri 3/22/19 8 days Wed 5/9/18 Thu 5/24/18
1480 PCO060 Final Inspection 0% Thu 3/21/19 Fri 3/22/19 2 days Tue 5/22/18 Thu 5/24/18
1481 PCO010 Operation manual, documents/ As-built dwg. 100% Sat 6/30/18 Wed 8/8/18 14 days Tue 3/13/18 Wed 3/28/18
1482 PCO020 Operation Training/Handover 100% Sat 6/30/18 Wed 8/8/18 14 days Tue 3/13/18 Wed 3/28/18
1483 PCO030 Clean-up/Demobilization 0% Wed 1/23/19 Sat 1/26/19 4 days Fri 5/25/18 Wed 5/30/18
1484 PCO080 Project System Completion/Handover- PRIORITY 100% Wed 8/8/18 Wed 8/8/18 0 days Wed 3/28/18 Wed 3/28/18
1485 PCS085 Project System Completion/Handover - NON-PRIORITY 0% Tue 1/22/19 Tue 1/22/19 0 days Fri 5/25/18 Fri 5/25/18
1486 Extended warranties 100% Tue 1/12/16 Tue 9/25/18 837 days Tue 1/12/16 Tue 1/12/16
1487 Force Account 100% Tue 1/12/16 Tue 1/12/16 1 day Tue 1/12/16 Tue 1/12/16
1488 Project Highlight 100% Mon 1/11/16 Tue 8/7/18 806 days Mon 1/11/16 Fri 5/11/18
Qtr 1, 2016 Qtr 2, 2016 Qtr 3, 2016 Qtr 4, 2016 Qtr 1, 2017 Qtr 2, 2017 Qtr 3, 2017 Qtr 4, 2017 Qtr 1, 2018 Qtr 2, 2018 Qtr 3, 2018 Qtr 4, 2018 Qtr 1, 2019
Mon Apr 23, '18 Jul 31, '18
Sun Sep 30, '18
Off-site Waterline B. Hyundai to new WWTP
Site Retaining walls
(B15,B16) ARV Replacement
Scada System
Site electrical P2
(B35) Standby Generator
Phase 2 System Activation Priority
Testing & Commissioning Phase 2 (Priority)
Digester Tank
Digester Bldg
Phase 2 System Activation Non- Priority
Testing & Commissioning Phase 2 (Non-Priority)
Supply to GWA
Site Grading and drainage
Perimeter fence line
Access road, guard rails and pavement
Project Close-out/ Inspection and Turn-over
Project Highlight
AGAT SANTA RITA WASTEWATER TREATMENT REPLACEMENT PROJECT
Mon 10/8/18 /ASWWTPR Schedule Updated September 2018.18-09-30 Dec.31 BL
Page 2 of 2
Baseline Milestone
Baseline Summary
baseline 4 updated Oct. 31, 2017
Baseline 4 - updated Oct. 31, 2017
Task
Task Completed
Milestone
Summary
Project Summary
Critical
Critical Split
progress
Manual Progress
Baseline

EXHIBIT C

GUAM WATERWORKS AUTHORITY
"Better Water. Better Lives."
Gloria B. Nelson Public Service Building | 688 Route 15, Mangilao, Guam 96913
P.O. Box 3010, Hagatna, Guam 96932
Tel. No. (671) 300-6846 Fax. No. (671) 648-3290

October 29, 2018

Mr. Takeyuki Shiino
General Manager
Sumitomo Mitsui Construction Co., Ltd. (Guam Office)
P.O. Box 9670
Tamuning, Guam 96931

Reference: GWA Project No. S14-002-BND; Construction of Agat-Santa Rita Wastewater Treatment Plant Replacement

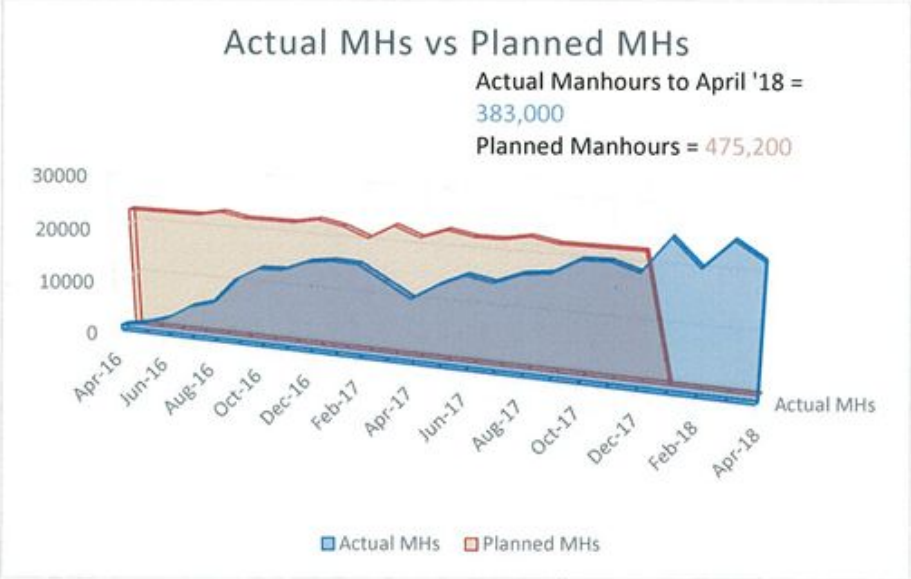
Subject: SMCC Letter LT-18-020, Request for Project Time Extension

Dear Mr. Shiino:

GWA is very aware of the issues SMCC has faced with regard to labor on this important project. In fact, GWA has been very proactive in working with all members of the Project Team - including SMCC, the Engineer of Record, and the Construction Manager – to provide flexibility in construction methods, additional equipment and materials, and additional resources for premium on labor costs to attract and retain additional labor SMCC needed to help us meet our Court Order deadlines.

While we appreciate the information SMCC has presented to support the request for a schedule extension due to the lack of H-2B labor, GWA feels that it is insufficient to support the request. Specifically, we note the following:

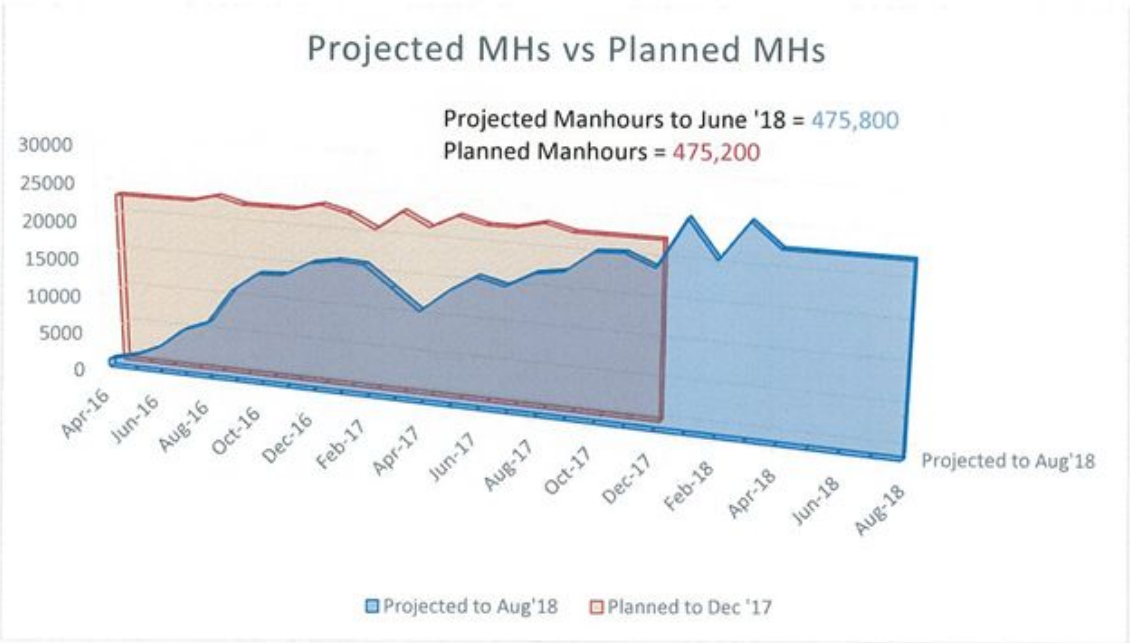
- The information provided indicates a planned manpower level of 126 laborers for the full duration of the original contract completion period as the basis for the total



manpower effort of 475,200 manhours. This ignores the reality on any construction project that requires scaling up the activities on the site at the beginning of the project, and ramping down the activities as the major elements of work are completed.

- The actual manhours presented through April 2018 appear to be based on the number of laborers on site, for the number of work days in a given month working an 8-hour shift. This does not seem to reflect the approach actually taken during construction, for longer shifts and extended work hours in order to recover schedule (GWA did in fact authorize and allocate additional funding for such activity). Therefore, the actual manhours may be understated in SMCC's analysis.
- SMCC is using a past average of total laborers (74) available to project the additional time required to complete the project, which was less than the number of actual laborers employed at the project when the request for time extension was made. This ignores what GWA believes should be the focus for SMCC, which is maintaining the 110+ laborers on the project in April 2018 through the end of the project period in order to minimize any further delay.

GWA believes a more realistic analysis of manhours is needed to support a reasonable request for time extension due to the labor issues facing SMCC. The graphic below is based on more reasonable assumptions for maintaining a labor force SMCC already achieved (110+) and driving for completion to minimize schedule delays.



Notwithstanding the conservative assumptions that SMCC has used with regard to scale-up and ramp-down, and an 8-hour work day, GWA's analysis and projection supports a reasonable time extension through August of 2018. The fact that we are already in October, and SMCC has not yet completed major elements of the work required for substantial completion is of critical concern to both GWA Management and Governance, and to the U.S. Environmental Protection Agency (USEPA), which continues to threaten GWA with additional action under the Court Order.

GWA is willing to provide a contract extension in accordance with our analysis above. However, we intend to assess liquidated damages beginning September 1, 2018 as set forth in the Contract. In the event the project is not completed before the end of the year, the liquidated damages assessed are projected to be approximately $480,000. GWA requires SMCC to immediately submit a revised schedule showing completion as soon as possible within the calendar year, along with a narrative plan on how SMCC intends to change its approach to make this happen.

I would like to meet with you on Monday, November 5th at 2:00pm at which time SMCC will be expected to provide the revised schedule and explain the plan for achieving the required completion.

Regards,

MIGUEL C. BORDALLO, P.E.
General Manager

Cc: T. Cruz (GWA)
J. Davis (GWA)
K.Clark (GWA)

EXHIBIT D

Date: October 03, 2018

To: Mr. John Davis, P.E., Project Manager
Guam Waterworks Authority
Gloria B. Nelson Public Utilities Complex
Route 15, Mangilao, Guam

Project: Agat-Santa Rita WWTP Replacement Project - Phase II
Project No. S14-002-BND

Subject: MOD 07 – Additional Construction Management Services Scope of Work & Fee Proposal

Dear Mr. Davis:

We are pleased to submit the following proposal for additional CM support services as described below.

SCOPE OF WORK:

In follow-up to your email dated September 20, 2018 (Exhibit 01), we have prepared a cost estimate to extend our Construction Management (CM) Services from ***September 01, 2018 through April 30, 2019*** as requested.

MOD 05 provided CM services through August 31, 2018. Based on the Contractor's most current progress schedule (Exhibit 02), the ***"Project Closeout/ Inspection and Turnover"*** is currently being shown as completed by ***November 07, 2018***. It is our opinion that this completion date is inaccurate, and we believe the work will not be completed until March or April of 2019. We base this projection on our observation of the on-site progress, the overall project completion percentage, the monthly average percent complete, and that no single structure has been 100% completed and accepted by GWA as of the date of this letter.

Kindly reference Exhibit 03. The graph begins in August 2016 when we received the Contractor's first payment application, and we were able to calculate the first percent of work complete. From NTP to July 31, 2018 the Contractor completed, on average, 3.42% of the total work per month. Over the six (6) month period of February 1, 2018 to July 31, 2018 the contractor completed, on average, 3.16% of the total work per month. Assuming they will complete the same amount of work (3.16% to 3.42% each month), we project the completion of construction (substantial completion) by January 31, 2019 (6 months from July 31, 2018). Additionally, we estimate two (2) to three (3) months for punch list work and project closeout. This would push the Contractor's Overall Project Completion Date to April 30, 2019.

Additionally, the onsite labor force seems to have been in a general decline for the last seven (7) months. The average site staffing for July and August 2018 was 90 persons. Please review Exhibit 04 to see this decline which appears to have begun in February or March of 2018.

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MOD 06 was prepared to provide additional CM services for the proposed 21-inch Baza Gardens Sanitary Sewer extension from Route 2A to the new ASRWWTP lift station. It is our understanding that these CM services will be provided by others and the associated fee will be utilized for additional CM services for this project.

MOD 07 has been prepared to establish a budgetary amount of anticipated monthly costs for each month the Contractor is unable to complete their work past August 31, 2018. Our proposal assumes a reduction in staffing as requested by John M. Davis, as described below, and as graphically presented in Table 01.

- We have assumed our current effort for September 2018 through October 2018.
- We have reduced the PM effort from 100% to 75% and the Civil Inspector, RFI & Submittal Manager from 100% to 50% for November 2018 through January 2019.
- We have reduced the PM effort from 75% to 50% and the Civil Inspector, RFI & Submittal Manager from 50% to 25%, and the Sr. Special Inspector from 15% to 0% for February 2019 through April 2019.

TABLE 01- SUMMARY OF MOD 07 STAFFING EFFORT

Working Days Per Month	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19
	22	23	22	21	23	20	21	22
Description/Labor Class								
Project Manager	100%	100%	75%	75%	75%	50%	50%	25%
Asst. Project Manager	100%	100%	100%	100%	100%	100%	100%	100%
Structural/Senior Special Inspector	15%	15%	15%	10%	5%	0%	0%	0%
Civil Inspector, RFI & Submittal Manager	100%	100%	50%	50%	50%	25%	25%	25%
Civil Inspector/Structural	100%	100%	100%	100%	100%	100%	100%	100%
Technical Administrative Support	100%	100%	100%	100%	100%	100%	100%	100%

Our estimate has been prepared in good faith, based on our current understanding of the remaining work, and for budgetary purposes only. As GWA is aware, the Contractor has not been able to provide an accurate recovery schedule or achieve projected completion milestones. Our actual effort is entirely dependent on the Contractor's ability to complete (or not complete) their work within the durations and timeframes represented in their schedule.

We have been providing our services on a time and materials (T&M) basis since April of 2018. It is our hope that the Contractor can finish this project in its entirety prior to the end of the year. However, as our current services are being provided on a T&M basis, we believe it is in GWA's best interest for GHD to provide a realistic "quantity of magnitude" with regard to what we believe the appropriate staffing, quality assurance costs, and related expenses will be, should project completion continue to extend.

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TABLE 02. SUMMARY OF MOD 07 ESTIMATED COST
(September 01, 2018 through April 30, 2019)

Description/Labor Class	Labor Hours	Estimated Labor Cost	GRT	Amount
Project Manager	992	$ 217,119.04	$ 9,047.35	$ 226,166
Assistant PM	1376	$ 134,737.92	$ 5,614.53	$ 140,352
Structural/Sr. Special Inspector	113	$ 18,504.80	$ 771.10	$ 19,276
Civil Inspector, RFI & Submittal Manager	734	$ 71,873.28	$ 2,994.96	$ 74,868
Civil/Special Inspector	1376	$ 127,183.68	$ 5,299.74	$ 132,483
Technical Administrative Support	1376	$ 114,042.88	$ 4,752.17	$ 118,795
Consumables				$ 108,056
Subconsultants				$ 125,600
Quality Assurance				$ 31,600
			TOTAL	**$ 977,197**

CLARIFICATIONS AND ASSUMPTIONS:

1. The T&M hourly rates used for our staffing positions are based on those established by Miguel C. Bordallo as reasonable and memorialized in email of July 19, 2018 from Tom Cruz (Exhibit 05). The attachment includes the spreadsheet prepared by Bordallo to establish these rates. We have provided a summary table of those rates to simplify review of this proposal and provide a single source document for future reference and review. (Exhibit 06)

2. In an effort to be completely transparent with GWA, a Detailed Spreadsheet has been provided in Exhibit 07, showing positions, rates, and hours carried in this estimate.

3. The estimated subconsultant services, quality assurance, and consumables associated with our monthly effort have been presented in Exhibit 08. The cost for these expenses is based on the costs incurred for the month of August 2018. Actual costs for consumables, reproduction, telephone & data, motor vehicles, subconsultants, and quality assurance will be provided on a T&M basis with appropriate supporting documentation as requested by Miguel C. Bordallo per email dated August 15, 2018 (Exhibit 09). GHD's corporate ***"2018 Fee Schedule"*** and ***"Chargeout List for Reproduction Supplies"*** may also be used in the event that receipts are not readily available. (Exhibit 10).

4. The CM's staffing shall generally consist of those positions shown in Table 01 & 02. The staffing effort shall be managed as an overall budget to allow appropriate flexibility for CM staffing to ramp up and down based on specific work activities that are in progress or work that has been completed. The CM shall coordinate the staffing based on the requirements for a particular day, week, or month.

5. The budget provided for anticipated quality assurance survey verification, compaction testing, concrete strength testing, and material testing assumes these services will be required through the end of the project. These costs will not be invoiced if they are not incurred. We anticipate these costs will not be exceeded.

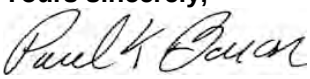
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6. The Contractor shall pay for overtime inspection services required or requested outside of the normal 40 hour work week. This requirement shall be strictly enforced and supported by GWA with payment being deducted from the Contractor's Progress Payment Applications as appropriate. This amount will then be distributed to GHD by GWA change order or by other acceptable terms to GHD and GWA.

7. GWA agrees to negotiate with GHD regarding change orders for additional construction phase services due to construction delays, additional work, or any other reason not due to the negligent acts of GHD until final completion of the project has been achieved.

We look forward to your favourable and expeditious response to this proposal. If you have any questions or concerns please do not hesitate to contact me directly.

Yours sincerely,



Paul K. Baron
Principal

Attachments:

- Exhibit 01 – GHD CM Contract Extension Past Aug 2018 Email
- Exhibit 02 – SMCC July 2018 Summary Schedule
- Exhibit 03 – Projected Project Completion by Monthly Percent Completes Graph
- Exhibit 04 – ASRWWTP Weekly Labor Force Summary
- Exhibit 05 – GHD Progress Billing April 01 Through April 30, 2018 Email
- Exhibit 06 – GHD Project Time & Materials Rate Schedule
- Exhibit 07 – MOD 07 Additional CM Service Positions, Rates, and Hours
- Exhibit 08 – GHD Schedule of Estimated Expenses
- Exhibit 09 – GHD Progress Billing April 01 Through April 30, 2018 Email
- Exhibit 10 – GHD Corporate 2018 Fee Schedule and Chargeout List for Reproduction Supplies

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EXHIBIT 01:
GHD CM Contract Extension Past Aug 2018 Email

GHD Inc.
865 South Marine Corps Drive Suite 202 Tamuning GU 96913
T 671 472 6792 **F** 671 477 6229 **W** www.ghd.com

Bryan Ryley

From: John Davis <jdavis@guamwaterworks.org>
Sent: Thursday, September 20, 2018 9:39 AM
To: Bryan Ryley
Subject: RE: Agat-SR WWTP / GHD CM Contract >> Extension past Aug 2018 (Phone comm 17Sep18)>>PLEASE PROCEED ...PROPOSED CHANGE ODER NO. 6

Morning Bryan,
Looks good.
Please proceed with putting prices to these manhour projections, include material costs, and submit as soon as you can.
Please reference this action as "Proposed Change Order No. 6.
Thanks, jd

From: Bryan Ryley [mailto:Bryan.Ryley@ghd.com]
Sent: Wednesday, September 19, 2018 4:09 PM
To: John Davis <jdavis@guamwaterworks.org>
Subject: RE: Agat-SR WWTP / GHD CM Contract >> Extension past Aug 2018 (Phone comm 17Sep18)

John,

Please take a look at the below and give me the green light. Thanks, Bryan Ryley

---

From: Bryan Ryley
Sent: Monday, September 17, 2018 3:38 PM
To: 'John Davis ' <jdavis@guamwaterworks.org>
Cc: Rylma Carino <rcarino@guamwaterworks.org>; Tom Cruz <thomas@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>
Subject: Agat-SR WWTP / GHD CM Contract >> Extension past Aug 2018 (Phone comm 17Sep18)

John,

Based on our phone call this morning, we have prepared a staffing matrix to estimate the utilization of additional CM staffing services for **September 2018 through April 2019.**

1. We have assumed current effort for **September 2018 through October 2018.** Columns highlighted in yellow.

2. We have reduced the PM effort from 100% to 75% and the Civil Inspector RFI & Submittal Manager from 100% to 50% for **November 2018 through January 2019**. Columns highlighted in blue.

3. We have reduced the PM effort from 75% to 50% and the Civil Inspector, RFI & Submittal Manager from 50% to 25%, and the Sr. Special Inspector from 15% to 0% for **February 2019 through April 2019.** Columns highlighted in green.

4. At this point, our estimate is for budgetary purposes as discussed. As you know, the Contractor has not been able to provide and achievable scheduled completion milestones, so our actual effort is dependent on the Contractors ability to complete their work in a timely manner.

5. Our services are now being provided on a time and materials based project, we recommend that the effort to complete the work be estimated as conservatively as practicable to avoid additional trips to the CCU "well", while maintaining appropriate staffing effort to complete our work.

6. We would like to request that the estimated staffing effort be managed as an overall budgetary amount allowing the flexibility for CM staffing to ramp our staff up and down based on the specific work activities being performed.

Kindly review that table below and items discussed above. If they are consistent with your request and to your satisfaction, we will proceed with the preparation of MOD 07. We have also responded to your comments below in "blue" font.

Working Days Per Month	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19
	22	23	22	21	23	20	21	22
Description/Labor Class								
Project Manager (B. Ryley)	100%	100%	75%	75%	75%	50%	50%	25%
Asst. Project Manager (S. Carbulido)	100%	100%	100%	100%	100%	100%	100%	100%
Structural/Sr.Special Inspector (A. Sutton)	15%	15%	15%	10%	5%	0%	0%	0%
Civil Inspector, RFI & Submittal Manager (J. Wu)	100%	100%	50%	50%	50%	25%	25%	25%
Civil Inspector/Structural (R. Miaco)	100%	100%	100%	100%	100%	100%	100%	100%
Technical Administrative Support (H. Cervania)	100%	100%	100%	100%	100%	100%	100%	100%

Thank you,

Bryan J. Ryley
Construction Manager

GHD
T: 671 472-6792 | F: 671 477-6229 | M: 671 797-3336 | VOIP: 860132 | E: bryan.ryley@ghd.com
865 South Marine Corps Drive, Suite 202, Tamuning, Guam 96913 USA | www.ghd.com

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

Please consider our environment before printing this email

From: John Davis <jdavis@guamwaterworks.org>
Sent: Monday, September 17, 2018 11:11 AM
To: Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: Rylma Carino <rcarino@guamwaterworks.org>; Tom Cruz <thomas@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>
Subject: Agat-SR WWTP / GHD CM Contract >> Extension past Aug 2018 (Phone comm 17Sep18)

Bryan,

To verify we are in agreement on the items we discussed today, please inform me if you take exception to any of the following points:

- GHD will prepare a fee proposal for Sep 18 thru April 19 by the end of this week (Sep 21)
  GHD: Agree.
- Fee proposal will show incremental reduction in fees after Oct to reflect decreasing contractor activity
  GHD: Agree.
- CCU approval of additional funding will not occur until next CCU meeting in October

GHD: Agree.

- GWA requests GHD billing for months of June through Aug
  GHD: We are in the process of preparing June 2018 invoice and will have it submitted before the end of the week.
- GHD May invoice has been forwarded to GWA-Finance
  GHD: Noted. Thank you.

Please notify me asap of any errors or omissions.

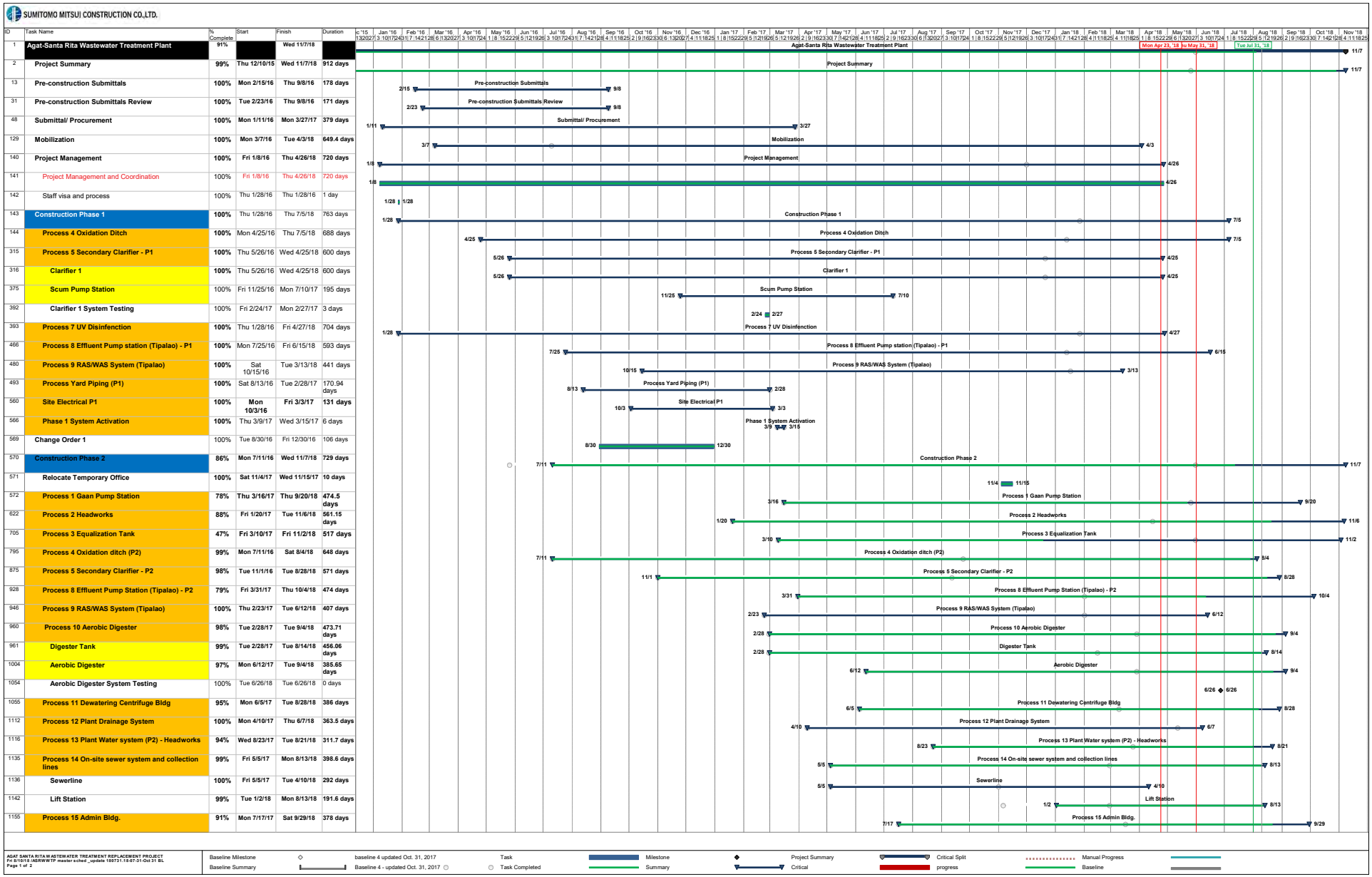
BR/jd

GUAM WATERWORKS AUTHORITY
J. McArthur Davis, PE
Civil Engineering Supervisor
671-300-6041

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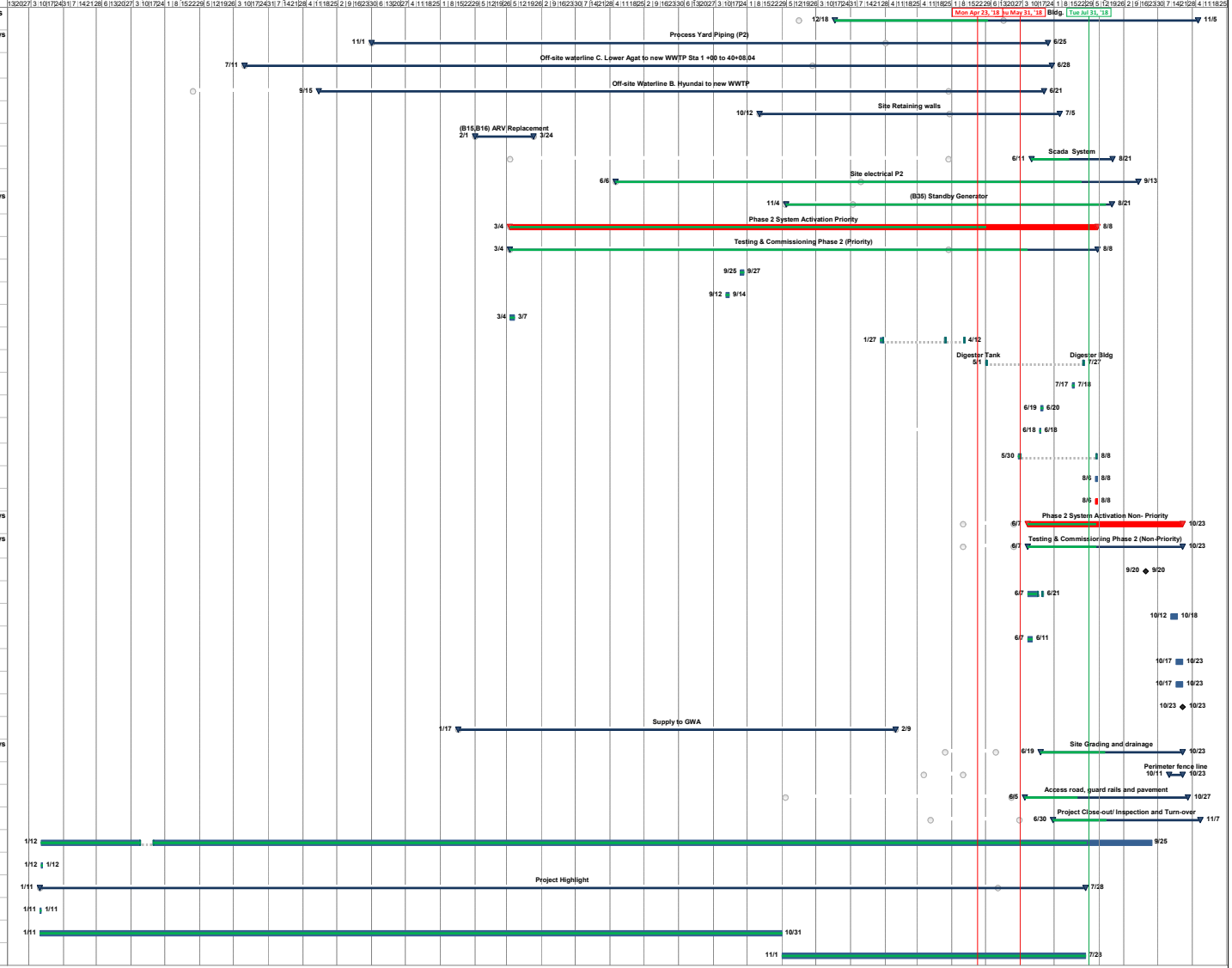
EXHIBIT 02:
SMCC July 2018 Summary Schedule

GHD Inc.
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SUMITOMO MITSUI CONSTRUCTION CO.,LTD.
ID
Task Name
% Complete
Start
Finish
Duration
1 Agat-Santa Rita Wastewater Treatment Plant 91% Wed 11/7/18
2 Project Summary 99% Thu 12/10/15 Wed 11/7/18 912 days
13 Pre-construction Submittals 100% Mon 2/15/16 Thu 9/8/16 178 days
31 Pre-construction Submittals Review 100% Tue 2/23/16 Thu 9/8/16 171 days
48 Submittal/ Procurement 100% Mon 1/11/16 Mon 3/27/17 379 days
129 Mobilization 100% Mon 3/7/16 Tue 4/3/18 649.4 days
140 Project Management 100% Fri 1/8/16 Thu 4/26/18 720 days
141 Project Management and Coordination 100% Fri 1/8/16 Thu 4/26/18 720 days
142 Staff visa and process 100% Thu 1/28/16 Thu 1/28/16 1 day
143 Construction Phase 1 100% Thu 1/28/16 Thu 7/5/18 763 days
144 Process 4 Oxidation Ditch 100% Mon 4/25/16 Thu 7/5/18 688 days
315 Process 5 Secondary Clarifier - P1 100% Thu 5/26/16 Wed 4/25/18 600 days
316 Clarifier 1 100% Thu 5/26/16 Wed 4/25/18 600 days
375 Scum Pump Station 100% Fri 11/25/16 Mon 7/10/17 195 days
392 Clarifier 1 System Testing 100% Fri 2/24/17 Mon 2/27/17 3 days
393 Process 7 UV Disinfenction 100% Thu 1/28/16 Fri 4/27/18 704 days
466 Process 8 Effluent Pump station (Tipalao) - P1 100% Mon 7/25/16 Fri 6/15/18 593 days
480 Process 9 RAS/WAS System (Tipalao) 100% Sat 10/15/16 Tue 3/13/18 441 days
493 Process Yard Piping (P1) 100% Sat 8/13/16 Tue 2/28/17 170.94 days
560 Site Electrical P1 100% Mon 10/3/16 Fri 3/3/17 131 days
566 Phase 1 System Activation 100% Thu 3/9/17 Wed 3/15/17 6 days
569 Change Order 1 100% Tue 8/30/16 Fri 12/30/16 106 days
570 Construction Phase 2 86% Mon 7/11/16 Wed 11/7/18 729 days
571 Relocate Temporary Office 100% Sat 11/4/17 Wed 11/15/17 10 days
572 Process 1 Gaan Pump Station 78% Thu 3/16/17 Thu 9/20/18 474.5 days
622 Process 2 Headworks 88% Fri 1/20/17 Tue 11/6/18 561.15 days
705 Process 3 Equalization Tank 47% Fri 3/10/17 Fri 11/2/18 517 days
795 Process 4 Oxidation ditch (P2) 99% Mon 7/11/16 Sat 8/4/18 648 days
875 Process 5 Secondary Clarifier - P2 98% Tue 11/1/16 Tue 8/28/18 571 days
928 Process 8 Effluent Pump Station (Tipalao) - P2 79% Fri 3/31/17 Thu 10/4/18 474 days
946 Process 9 RAS/WAS System (Tipalao) 100% Thu 2/23/17 Tue 6/12/18 407 days
960 Process 10 Aerobic Digester 98% Tue 2/28/17 Tue 9/4/18 473.71 days
961 Digester Tank 99% Tue 2/28/17 Tue 8/14/18 456.06 days
1004 Aerobic Digester 97% Mon 6/12/17 Tue 9/4/18 385.65 days
1054 Aerobic Digester System Testing 100% Tue 6/26/18 Tue 6/26/18 0 days
1055 Process 11 Dewatering Centrifuge Bldg 95% Mon 6/5/17 Tue 8/28/18 386 days
1112 Process 12 Plant Drainage System 100% Mon 4/10/17 Thu 6/7/18 363.5 days
1116 Process 13 Plant Water system (P2) - Headworks 94% Wed 8/23/17 Tue 8/21/18 311.7 days
1135 Process 14 On-site sewer system and collection lines 99% Fri 5/5/17 Mon 8/13/18 398.6 days
1136 Sewerline 100% Fri 5/5/17 Tue 4/10/18 292 days
1142 Lift Station 99% Tue 1/2/18 Mon 8/13/18 191.6 days
1155 Process 15 Admin Bldg. 91% Mon 7/17/17 Sat 9/29/18 378 days
Agat-Santa Rita Wastewater Treatment Plant
Mon Apr 23, '18
Tue May 31, '18
Tue Jul 31, '18
AGAT SANTA RITA WASTEWATER TREATMENT REPLACEMENT PROJECT
Fri 8/10/18 AGRWWTP master sched _update 180731.18-07-31-Oct 31 BL
Page 1 of 2
Baseline Milestone
Baseline Summary
baseline 4 updated Oct. 31, 2017
Baseline 4 - updated Oct. 31, 2017
Task
Task Completed
Milestone
Summary
Project Summary
Critical
Critical Split
progress
Manual Progress
Baseline

SUMITOMO MITSUI CONSTRUCTION CO.,LTD.

ID	Task Name	% Complete	Start	Finish	Duration
1212	**Process 16 Maintenance Bldg.**	**42%**	**Mon 12/18/17**	**Mon 11/5/18**	**277 days**
1283	**Process Yard Piping (P2)**	**100%**	**Tue 11/1/16**	**Mon 6/25/18**	**515.5 days**
1330	**Off-site waterline C. Lower Agat to new WWTP Sta 1 +00 to 40+08.04**	**100%**	**Mon 7/11/16**	**Thu 6/28/18**	**616 days**
1351	**Off-site Waterline B. Hyundai to new WWTP**	**100%**	**Thu 9/15/16**	**Thu 6/21/18**	**553 days**
1373	**Site Retaining walls**	**100%**	**Thu 10/12/17**	**Thu 7/5/18**	**229 days**
1396	**(B15,B16) ARV Replacement**	**100%**	**Wed 2/1/17**	**Fri 3/24/17**	**45 days**
1400	**Scada System**	**46%**	**Mon 6/11/18**	**Tue 8/21/18**	**62 days**
1410	**Site electrical P2**	**89%**	**Tue 6/6/17**	**Thu 9/13/18**	**399 days**
1419	**(B35) Standby Generator**	**98%**	**Sat 11/4/17**	**Tue 8/21/18**	**247.6 days**
1431	**Phase 2 System Activation Priority**	**81%**	**Sat 3/4/17**	**Wed 8/8/18**	**447.75 days**
1432	**Testing & Commissioning Phase 2 (Priority)**	**88%**	**Sat 3/4/17**	**Wed 8/8/18**	**447.75 days**
1433	**Process 4 Oxidation P2SA**	100%	Mon 9/25/17	Wed 9/27/17	3 days
1434	**Process 5 Secondary Clarifiers P2SA**	100%	Tue 9/12/17	Thu 9/14/17	3 days
1435	**Process 7 Ultraviolet Disinfection P2SA**	100%	Sat 3/4/17	Tue 3/7/17	3 days
1436	**Process 8 Tipalao Pump Station P2SA**	100%	Sat 1/27/18	Thu 4/12/18	3 days
1437	**Process 10 Aerobic Digester P2SA**	100%	Tue 5/1/18	Fri 7/27/18	2 days
1438	**Process 11 Dewatering Centrifuge P2SA**	100%	Tue 7/17/18	Wed 7/18/18	2 days
1439	**Process 13 Plant Water System P2SA**	100%	Tue 6/19/18	Wed 6/20/18	2 days
1440	**Process 14 On-site sewer collection & Lift Station P2SA**	100%	Mon 6/18/18	Mon 6/18/18	1 day
1441	**Porcess 15 Admin Building P2SA**	67%	Wed 5/30/18	Wed 8/8/18	3 days
1442	**Phase 2 System Testing Priority**	0%	Mon 8/6/18	Wed 8/8/18	2 days
1443	**Phase 2 Operation Priority**	0%	Mon 8/6/18	Wed 8/8/18	2 days
1444	**Phase 2 System Activation Non- Priority**	**44%**	**Thu 6/7/18**	**Tue 10/23/18**	**117.6 days**
1445	**Testing & Commissioning Phase 2 (Non-Priority)**	**44%**	**Thu 6/7/18**	**Tue 10/23/18**	**117.6 days**
1446	**Process 1 Gaan PS P2SA**	0%	Thu 9/20/18	Thu 9/20/18	0 days
1447	**Process 2 Headworks P2SA**	100%	Thu 6/7/18	Thu 6/21/18	9 days
1448	**Process 3 Equalization Tank P2SA**	0%	Fri 10/12/18	Thu 10/18/18	5 days
1449	**Process 12 Drainage Piping P2SA**	100%	Thu 6/7/18	Mon 6/11/18	3 days
1450	**Process 16 Maintenance Building P2SA**	0%	Wed 10/17/18	Tue 10/23/18	5 days
1451	Phase 2 System Testing Non Priority	0%	Wed 10/17/18	Tue 10/23/18	5 days
1452	**Phase 2 Operation Non-Priority**	0%	Tue 10/23/18	Tue 10/23/18	0 days
1453	**Supply to GWA**	**100%**	**Tue 1/17/17**	**Fri 2/9/18**	**334 days**
1457	**Site Grading and drainage**	**45%**	**Tue 6/19/18**	**Tue 10/23/18**	**108.1 days**
1463	**Perimeter fence line**	**0%**	**Thu 10/11/18**	**Tue 10/23/18**	**10 days**
1467	**Access road, guard rails and pavement**	**32%**	**Tue 6/5/18**	**Sat 10/27/18**	**125 days**
1477	**Project Close-out/ Inspection and Turn-over**	**36%**	**Sat 6/30/18**	**Wed 11/7/18**	**112 days**
1486	**Extended warranties**	94%	Tue 1/12/16	Tue 9/25/18	837 days
1487	**Force Account**	100%	Tue 1/12/16	Tue 1/12/16	1 day
1488	**Project Highlight**	**100%**	**Mon 1/11/16**	**Sat 7/28/18**	**798 days**
1489	NTP	100%	Mon 1/11/16	Mon 1/11/16	1 day
1490	Construction	100%	Mon 1/11/16	Tue 10/31/17	660 days
1491	Rain days as of 31 July 2018	100%	Wed 11/1/17	Sat 7/28/18	270 days



AGAT SANTA RITA WASTEWATER TREATMENT REPLACEMENT PROJECT
Fri 8/10/18 AGRWWTP master sched _update 180731.18-07-31-Oct 31 BL
Page 2 of 2

Baseline Milestone ◇ baseline 4 updated Oct. 31, 2017 Task Milestone Project Summary Critical Split Manual Progress
Baseline Summary Baseline 4 - updated Oct. 31, 2017 Task Completed Summary Critical progress Baseline

EXHIBIT 03:
Projected Project Completion by Monthly Percent Completes Graph

GHD Inc.
865 South Marine Corps Drive Suite 202 Tamuning GU 96913
T 671 472 6792 **F** 671 477 6229 **W** www.ghd.com

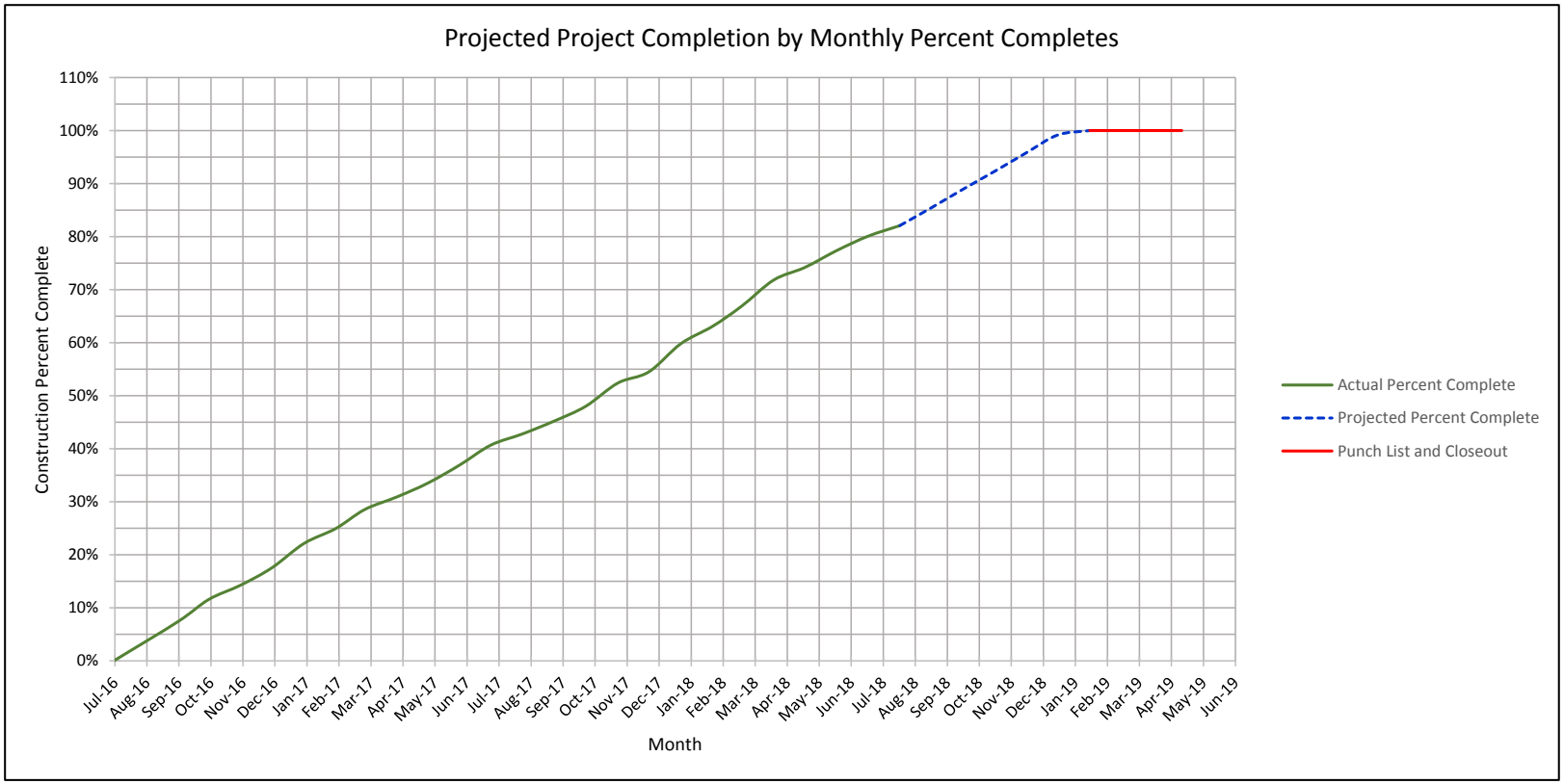
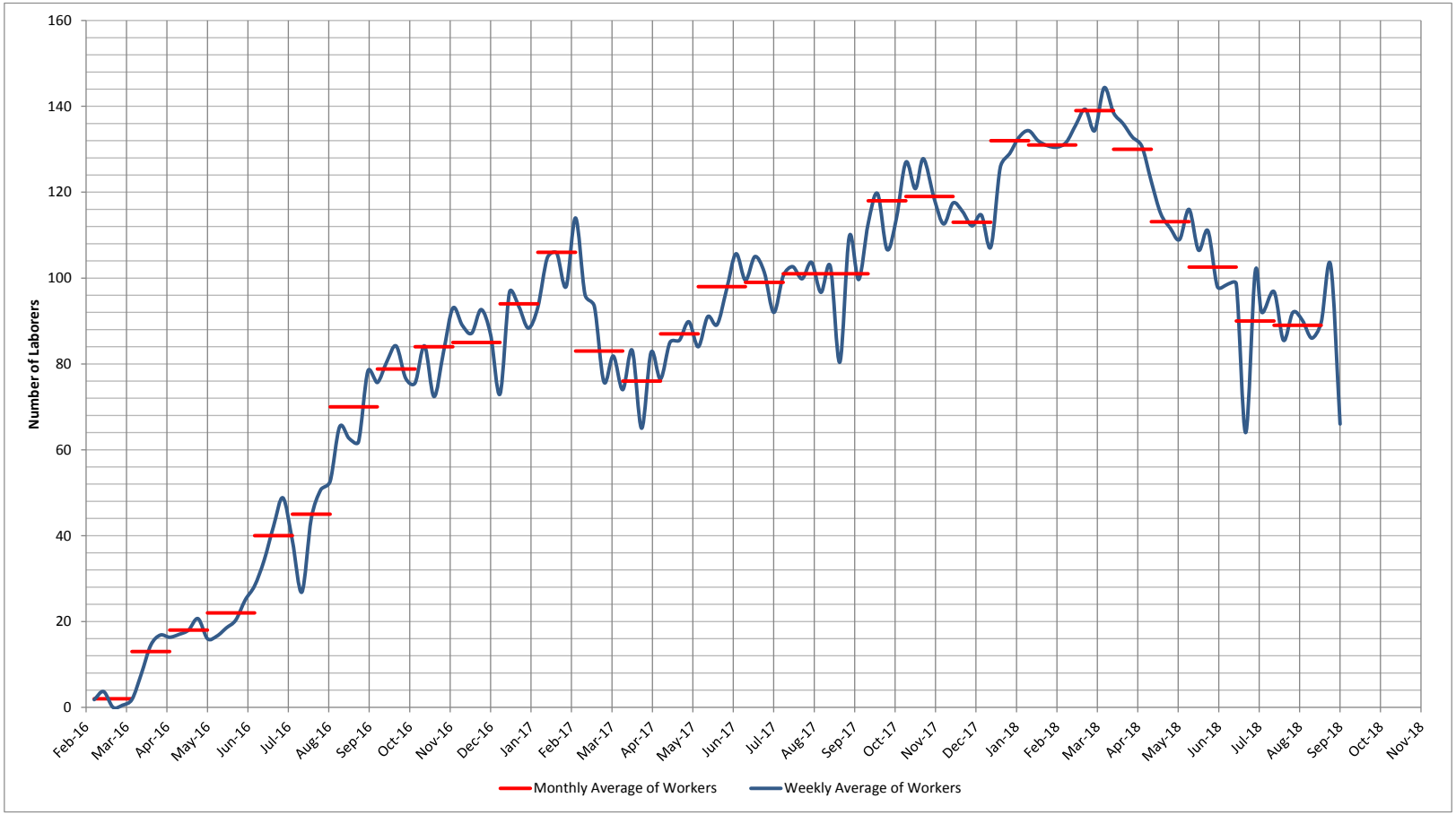

Projected Project Completion by Monthly Percent Completes
Construction Percent Complete
110%
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Jul-16
Aug-16
Sep-16
Oct-16
Nov-16
Dec-16
Jan-17
Feb-17
Mar-17
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
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Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Jan-19
Feb-19
Mar-19
Apr-19
May-19
Jun-19
Month
Actual Percent Complete
Projected Percent Complete
Punch List and Closeout

EXHIBIT 04:
ASRWWTP Weekly Labor Force Summary

GHD Inc.
865 South Marine Corps Drive Suite 202 Tamuning GU 96913
T 671 472 6792 **F** 671 477 6229 **W** www.ghd.com

AGAT-SANTA RITA WWTP REPLACEMENT PROJECT
WEEKLY LABOR FORCE SUMMARY



Note: Sundays and Holidays are not Included in this Graph

EXHIBIT 05:
GHD Progress Billing April 01 Through April 30, 2018 Email

GHD Inc.
865 South Marine Corps Drive Suite 202 Tamuning GU 96913
T 671 472 6792 **F** 671 477 6229 **W** www.ghd.com

Bryan Ryley

From: Thomas Cruz <thomas@guamwaterworks.org>
Sent: Thursday, July 19, 2018 2:39 PM
To: 'Miguel C Bordallo'; Paul Baron; 'John Davis '; Bryan Ryley
Cc: Joe Heitzler; 'Kelly Clark'
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)
Attachments: MCB OH Calcs 2018JUL13.xlsx

Paul,
Attached for your review and refence is a spreadsheet that calculates what GWA accepts for invoice rates for positions that are related to the above subject. I will work with my staff to get this official via a Change Order 4A. Additionally, GWA is amenable that you not make any adjustment to the invoice that is currently with GWA given your concern that this invoice is linked to your company's last fiscal year ending. GWA will expect though that subsequent invoices will follow the rates calculated and that your invoices will not exceed contract modification approval amounts.

We can definitely discuss further if you have any question. Please be advised GWA will be close July 20th in observance of Liberation Day.

GUAM WATERWORKS AUTHORITY

Thomas Cruz, P.E.
Chief Engineer
(671) 300-6036

From: Miguel C Bordallo <mcbordallo@guamwaterworks.org>
Sent: Wednesday, July 18, 2018 5:37 PM
To: 'Paul Baron' <Paul.Baron@ghd.com>; 'John Davis ' <jdavis@guamwaterworks.org>; 'Bryan Ryley' <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'Joe Heitzler' <Joe.Heitzler@ghd.com>; 'Kelly Clark' <koclark@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Paul,

GWA will issue a Mod4A to clarify and address the acceptable OH&P for T&M invoices. As I understand it, Mod5 will follow and reflect the change in your rates with your new FY. Tom will be packaging this and will coordinate any issues related to your request at our last meeting.

Regards,

MCB

From: Paul Baron <Paul.Baron@ghd.com>
Sent: Wednesday, July 11, 2018 3:15 PM
To: Miguel C Bordallo <mcbordallo@guamwaterworks.org>; 'John Davis ' <jdavis@guamwaterworks.org>; Bryan Ryley

<Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Kelly Clark' <koclark@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Here is blended direct for the positions, note July 1 was beginning of FY and raises become effective. Coming over now.
Regards
Paul

	Rate Through 6/30/18	Rate Effective 7/1/2018
1. Project Manager	$ 72.98	$ 74.52
2. Structural/Special Inspector	$ 55.00	$ 55.66
3. Civil Inspector/Structural	$ 30.80	$ 31.47
4. Asst. Project Manager	$ 32.68	$ 33.34
5. Civil Inspector	$ 30.80	$ 31.47
6. Submittal/RFI Manager	$ 27.20	$ 28.22

From: Miguel C Bordallo <mcbordallo@guamwaterworks.org>
Sent: Wednesday, 11 July 2018 1:31 PM
To: Paul Baron <Paul.Baron@ghd.com>; 'John Davis ' <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Kelly Clark' <koclark@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Paul,

Please provide direct hourly labor rates for the following individuals (April Invoice):

1. Bryan Ryley
2. Jeff Groom
3. Joseph Wu
4. Steven Carbullido
5. Ramon Calilung
6. Rodolfo Miaco
7. Heidi Cervania

In the alternate, please provide a direct hourly composite rate for the following positions (Original Fee Proposal):

1. Project Manager
2. Structural/Special Inspector
3. Civil Inspector/Structural
4. Asst. Project Manager
5. Civil Inspector
6. Submittal/RFI Manager

I have reviewed the audit provided and have what I believe to be an acceptable OH rate in hand, but want to calculate the hourly rates to evaluate against positions we are being invoiced for. Trying to expedite resolution on this matter and appreciate your patience.

Regards,

MCB

From: Paul Baron <Paul.Baron@ghd.com>
Sent: Monday, July 9, 2018 5:00 PM
To: John Davis <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

I did meet with Miguel, I believe he has everything he requested from me to evaluate the issue. I believe Bryan is asking if you have everything that you requested below, which I believe you do but let us know.
Regards
Paul

From: John Davis <jdavis@guamwaterworks.org>
Sent: Monday, 9 July 2018 4:56 PM
To: Bryan Ryley <Bryan.Ryley@ghd.com>; Paul Baron <Paul.Baron@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Bryan,

My understanding was that Mr. Baron intended to make an appeal to "…Miguel and upper management" (per June 6 email.) I have not been informed of the outcome of this appeal. Please clarify.

Thank you.

GUAM WATERWORKS AUTHORITY
J. McArthur Davis, PE
Civil Engineering Supervisor
671-300-6041

From: Bryan Ryley [mailto:Bryan.Ryley@ghd.com]
Sent: Monday, July 09, 2018 9:43 AM
To: John Davis <jdavis@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo'

<mcbordallo@guamwaterworks.org>
Subject: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Mr. Davis,

Kindly advise the status for processing of Payment Application No. 31 for work completed April 01 through April 30, 2018.

Thank you,

Bryan J. Ryley
Construction Manager

GHD
T: 671 472-6792 | F: 671 477-6229 | M: 671 797-3336 | VOIP: 860132 | E: bryan.ryley@ghd.com
865 South Marine Corps Drive, Suite 202, Tamuning, Guam 96913 USA | www.ghd.com

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Please consider our environment before printing this email

From: Bryan Ryley
Sent: Friday, June 29, 2018 7:02 PM
To: John Davis <jdavis@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>
Cc: "Thomas Cruz" <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018):Revised>>J DAVIS RESPONSE 29JUN18

Mr. Davis,

Please see attached.

Thank you,

Bryan J. Ryley
Construction Manager

GHD
T: 671 472-6792 | F: 671 477-6229 | M: 671 797-3336 | VOIP: 860132 | E: bryan.ryley@ghd.com
865 South Marine Corps Drive, Suite 202, Tamuning, Guam 96913 USA | www.ghd.com

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Please consider our environment before printing this email

From: John Davis <jdavis@guamwaterworks.org>
Sent: Friday, June 29, 2018 3:22 PM
To: Bryan Ryley <Bryan.Ryley@ghd.com>; Paul Baron <Paul.Baron@ghd.com>
Cc: "Thomas Cruz" <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018):Revised>>J DAVIS RESPONSE 29JUN18

Bryan,

Unfortunately, the approval of this invoice cannot be expeditious as the supporting paperwork/invoices are scattered through about 300 pages, and are not summarized in a fashion that can be readily verified. More importantly, **the overhead and profit *per centage* on wages and expenses has not been established**.

Kindly perform the following actions so that this invoice may be processed:

- Help establish an OH&P rate that is acceptable to GWA and GHD managers;
  GHD: Attached are our various standard labor rates. Pick the column you are most comfortable with.

- Identify the invoice as No. 31 (not no. 32);
  GHD: Noted and corrected.

- Summarize the hours for each person on a single sheet;
  GHD: The requested hours worked by each staff person were provided as the 11th sheet of the previously submitted payment application. We have also provided it as a separate attachment to this email.

- Summarize the expenses by itemizing each separate expenditure on a single sheet;
  GHD: All the expenses were provided with itemized summaries in the previously submitted payment application. To assist your review we have provided a single sheet summarizing all the expense, listed each expense in the table of contents, provided reference letter for each expense correlating to the "single sheet expense summary". In addition, we have also provided it as a separate attachment to this email. Also, hard copies of same were provided in the first submittal package.

- For future invoices, indicate the number of hours each day each employee charges to a specific task;
  GHD: Sure, we can provide the same "Labor Summary per Task" as provide in the previous application and attached.

- Several expense items were paid previously by GWA and will need to be omitted.
  GHD: Kindly identify the expenses you believe have been previously invoiced and we will review.

Thank you for your cooperation.
John

GUAM WATERWORKS AUTHORITY
J. McArthur Davis, PE
Civil Engineering Supervisor
671-300-6041

From: Bryan Ryley [mailto:Bryan.Ryley@ghd.com]
Sent: Friday, June 22, 2018 7:56 PM
To: John Davis <jdavis@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo'

<mcbordallo@guamwaterworks.org>
Subject: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018):Revised

John,

Please revised April 2018 invoice for the Agat-Santa Rita WWTP Replacement Project. Thank you for your patients and support. We can meet if you would like to discuss the details. Otherwise, we look forward to your favorable and expeditious approval of this revised invoice. Please do not hesitate to contact me directly should you have any questions or concerns. Have a nice weekend.

Thank you,

Bryan J. Ryley
Construction Manager

GHD
T: 671 472-6792 | F: 671 477-6229 | M: 671 797-3336 | VOIP: 860132 | E: bryan.ryley@ghd.com
865 South Marine Corps Drive, Suite 202, Tamuning, Guam 96913 USA | www.ghd.com

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Please consider our environment before printing this email

From: John Davis <jdavis@guamwaterworks.org>
Sent: Friday, June 22, 2018 6:02 PM
To: Paul Baron <Paul.Baron@ghd.com>; Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)::REJECTED

Paul, Bryan,

Has any progress been made on this issue?

Thanks,
John

From: Paul Baron [mailto:Paul.Baron@ghd.com]
Sent: Wednesday, June 06, 2018 1:26 PM
To: John Davis <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)::REJECTED
Importance: High

John,
We are appealing your decision on this to Miguel and upper management.

Bryan
Please proceed accordingly to follow up on our side with legal and contracts as well to arrange for a meeting.
Regards
Paul

From: John Davis <jdavis@guamwaterworks.org>
Sent: Wednesday, 6 June 2018 1:22 PM
To: Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)::REJECTED

Hafa Adai Bryan,
We have unfortunately overlooked agreeing upon an OH&D markup for salaries. Since this contract is now on a Time and Materials basis, an agreed mark-up *per centage* for salaries and expenses must be established. The previous markup of approx. 200% for salaries can no longer be maintained. {Note that this 200% markup for overhead and profit now accounts for over $2M in payments.} Also note that my position may be appealed to GWA's upper management.

Kindly also provide how much time that staff devotes to each SOW item. This is important to justify the need for six fulltime staff.

This issue can be included on today's monthly project meeting, or discussed at a separate meeting.

Thank you for your cooperation.
John

GUAM WATERWORKS AUTHORITY
J. McArthur Davis, PE
Civil Engineering Supervisor
671-300-6041

From: Bryan Ryley [mailto:Bryan.Ryley@ghd.com]
Sent: Monday, June 04, 2018 3:20 PM
To: GWA - John Davis <jdavis@guamwaterworks.org>
Cc: 'Thomas Cruz' (thomas@guamwaterworks.org) <thomas@guamwaterworks.org>; rcarino <rcarino@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>
Subject: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

June 4, 2018
Mr. John Davis, P.E.
Guam Waterworks Authority
Gloria B. Nelson Public Utilities Complex
Route 15, Mangilao, Guam

Re: Agat WWTP Replacement Construction Management for Agat WWTP Replacement

Project No. S14-002-BND, GHD April 2018 Invoice No. 100786

Dear Mr. Davis,

Please find attached **Invoice No. 100786** for CM Services from April 1, 2018 through April 30, 2018 in the amount of ***Two Hundred Eight Thousand Nine Hundred Fifty-Five Dollars and 15/100 ($208,955.15).*** This consists of $141,007.50 in GHD labor, $34,074.69 in expenses for April 2018, and $23,425.50 in expenses related to the additional work for the Clearing and Grading Phase authorized under MOD 04. As agreed to with GWA, work performed during this period has been performed on a time and material basis and includes, but was not limited to, the following:

> Project administration, implementation & maintenance of project controls, project correspondence, review and processing of submittals & shop drawings, payment request, conduct weekly progress meetings, review and process requests for information, general compliance monitoring, claims and disputes, maintain project records & document management, construction inspection and quality control monitoring.

We have itemized each of the SOW tasks performed by each staff member and sub consultants. As discussed with you previously, the tasks have not changed, just the duration for which our services were performed as this is driven directly by the Contractor's performance.

A hardcopy with appendices will be submitted to your office tomorrow. Please do not hesitate to contact me directly should you have any questions or concerns.

Thank you,

Bryan J. Ryley
Construction Manager

GHD
T: 671 472-6792 | F: 671 477-6229 | M: 671 797-3336 | VOIP: 860132 | E: bryan.ryley@ghd.com
865 South Marine Corps Drive, Suite 202, Tamuning, Guam 96913 USA | www.ghd.com

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Attachments: Invoice 97869, Detailed Spread Sheet, Monthly Progress Report

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A.	**GHD Audited OH**		
1	Total Indirect Expenses	$	65,027,762
2	Less FAR Unallowable Expenses	$	(4,565,257)
a	Salaries and Wage adjustments	$	(438,021)
b	Travel	$	(1,322)
c	Bad Debts	$	55,491
d	Marketing and Advertising	$	(277,019)
e	Entertainment	$	(142,026)
f	Professional Fees	$	(791,359)
g	Other expense adjustments	$	(261,779)
h	Tax Expenses	$	(2,199,437)
i	Interest Expense	$	(602,075)
j	Facilities capital cost of money	$	92,290
3	Adjusted Total Indirect Expenses (1-2)	$	60,462,505
4	Direct Expenses	$	36,155,013
5	FAR Compliant OH (3 / 4)		167%
B.	**Profit**		10%
C.	**GRT**		4.1667%

					For Comparison - MOD 04
D.	**Invoice Rates (includes GRT) - Up to June 30th**	Direct ($/hr)		Loaded ($/hr)	
1	Project Manager	$72.98	$	223	
2	Structural/Special Inspector	$55.00	$	168	
3	Civil Inspector/Structural	$30.80	$	94	
4	Asst. Project Manager	$32.68	$	100	
5	Civil Inspector	$30.80	$	94	
6	Submittal/RFI Manager	$27.20	$	83	
E.	**Invoice Rates (includes GRT) - After June 30th**	Direct ($/hr)		Loaded ($/hr)	Loaded ($/hr)
1	Project Manager	$74.52	$	228	$ 221
2	Structural/Special Inspector	$55.66	$	170	$ 110
3	Civil Inspector/Structural	$31.47	$	96	$ 121
4	Asst. Project Manager	$33.34	$	102	$ 121
5	Civil Inspector	$31.47	$	96	$ 101
6	Submittal/RFI Manager	$28.22	$	86	$ 101

EXHIBIT 06:
GHD Project Time & Materials Rate Schedule

GHD Inc.
865 South Marine Corps Drive Suite 202 Tamuning GU 96913
T 671 472 6792 **F** 671 477 6229 **W** www.ghd.com

GHD - PROJECT TIME & MATERIALS RATE SCHEDULE

Project Name: Agat-Santa Rita Waste Water Treatment Plant Replacement
GHD Project Number: 11109000
Prepared by: Bryan J. Ryley

Attachment:
of:
Checked by: Paul K. Baron
Date:

C	D	E	F	G	H	I
Category	**Direct Hourly Rate**	**GWA Loaded ($/hr) w/o GRT (Up to June 30th)**	**GWA Loaded ($/hr) w/o GRT (After June 30th)**	**GHD US West Standard Charge Rates w/o GRT**	**Delta (E - G) (Up to June 30th)**	**Delta (F - G) (After June 30th)**
Project Manager	$72.98	$214.34	$218.87	$200.00	$14.34	$18.87
Asst. Project Manager	$32.68	$95.98	$97.92	$130.00	-$34.02	-$32.08
Structural/Special Inspector	$55.00	$161.54	$163.47	$234.00	-$72.46	-$70.53
Civil Inspector/RFI/Submittal	$30.80	$90.46	$92.43	$135.00	-$44.54	-$42.57
Civil/Special Inspector	$30.80	$90.46	$92.43	$130.00	-$39.54	-$37.57
Technical Administration	$27.20	$79.89	$82.88	$100.00	-$20.11	-$17.12

EXHIBIT 07:
MOD 07 Additional CM Service Positions, Rates, and Hours

GHD Inc.
865 South Marine Corps Drive Suite 202 Tamuning GU 96913
T 671 472 6792 **F** 671 477 6229 **W** www.ghd.com

Agat-Santa Rita Waste Water Treatment Plant Repalcemeny Project - Phase II
MOD 07 - Additional CM Services
(September 01, 2018 through April 30, 2019)

Month		Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	Total
Working Days Per Month		20	23	22	21	23	20	21	22	43
Description/Labor Class	Rate									
		160	184	132	126	138	80	84	88	992
Project Manager	$218.87	$35,019	$40,272	$28,891	$27,578	$30,204	$17,510	$18,385	$19,261	$217,119
		160	184	176	168	184	160	168	176	1376
Assistant PM	$97.92	$15,667	$18,017	$17,234	$16,451	$18,017	$15,667	$16,451	$17,234	$134,738
		24	28	26	17	18	0	0	0	113
Structural/Sr. Special Inspector	$163.47	$3,923	$4,512	$4,316	$2,746	$3,008	$0	$0	$0	$18,505
		160	184	88	84	92	40	42	44	734
Civil Inspector, RFI & Submittal Manager	$97.92	$15,667	$18,017	$8,617	$8,225	$9,009	$3,917	$4,113	$4,308	$71,873
		160	184	176	168	184	160	168	176	1376
Civil/Special Inspector	$92.43	$14,789	$17,007	$16,268	$15,528	$17,007	$14,789	$15,528	$16,268	$127,184
		160	184	176	168	184	160	168	176	1376
Technical Administrative Support	$82.88	$13,261	$15,250	$14,587	$13,924	$15,250	$13,261	$13,924	$14,587	$114,043
TOTAL (hr)		824	948	774	731	800	600	630	660	5967
TOTAL GHD LABOR ESTIMATE		$ 98,326	$ 113,075	$ 89,912	$ 84,452	$ 92,495	$ 65,143	$ 68,400	$ 71,658	$683,462

EXHIBIT 08:
GHD Schedule of Estimated Expenses

GHD Inc.
865 South Marine Corps Drive Suite 202 Tamuning GU 96913
T 671 472 6792 **F** 671 477 6229 **W** www.ghd.com

GHD - SCHEDULE OF ESTIMATED EXPENSES

Project Name: Agat-Santa Rita Waste Water Treatment Plant Replacement
GHD Project Number: 11109000
Prepared by: Bryan J. Ryley

Attachment:
of:
Checked by: Paul K. Baron
Date:

ITEM NO.	DESCRIPTION	QUANTITIY	UNIT PRICE	AMOUNT	MARKUP	TOTAL
1.0	**SITE CONSUMABLE COST**					**$ 500.00**
1.1	Copy Express Prints					$ 100.00
1.2	Cost-U-Less					$ 100.00
1.3	Home Depot					$ 100.00
1.4	National Office Supplies					$ 100.00
1.5	Payless Supermarket					$ 100.00
2.0	**REPRODUCTION CONSUMABLE COST**					**$ 1,090.00**
2.1	DPW Monthly Special Inspection Report					$ 120.00
2.2	Monthly GWA Manager's Meeting Report					$ 200.00
2.3	ASRWWTP Weekly Progress Meetings					$ 320.00
2.4	Other					$ 450.00
3.0	**TELEPHONE & DATA CONSUMABLE COST**					**$ 446.00**
3.1	Telephone Expense					$ 286.00
3.2	Site Internet Expense					$ 160.00
4.0	**MOTOR VEHICLE CONSUMABLE COST**					**$ 4,850.00**
4.1	2015 Nissan Rogue (TO2715)					$ 2,100.00
4.2	2017 GMC Canyon (YN4682)					$ 2,300.00
4.3	GHD Joe W. POV Mileage					$ 290.00
4.4	GHD Steven C. POV Mileage					$ 160.00
5.0	**EQUIPMENT CONSUMABLE COST**					**$ 6,113.00**
5.1	**Site Camera Expense (Earthcam)**					$ 2,633.00
1	Robotic Camera Software Support & Archiving					
2	20GB monthly data					
3	Earthcam - Construction Cam Lite HD					
5.2	**Site Camera Expense (Workzone)**					$ 1,886.00
1	Work Zone Cam - 8MP Fully Hosted Service					
2	20GB monthly data					
3	Workzone - 18 Megapixel SLR Camera System					
5.3	**Kawasaki Mule 4010 trans 4x4**					$ 1,450.00
5.4	**Drone Expense**					$ 144.00
6.0	**SUBCONSULTANT COST**					**$ 15,700.00**
6.1	**LD Matson**					$ 2,700.00
6.2	**Wixon & Associates**					$ 13,000.00
7.0	**QUALITY ASSURANCE COST**					**$ 3,950.00**
7.1	**QA Survey -** Guam Surveyor, LLC					$ 2,000.00
7.2	**QA Compaction -** Geo-Engineering & Testing, Inc.					$ 750.00
7.3	**QA Concrete -** Geo-Engineering & Testing, Inc.					$ 1,200.00
				GRAND TOTAL		**$ 32,649.00**

EXHIBIT 09:
GHD Progress Billing April 01 Through April 30, 2018 Email

GHD Inc.
865 South Marine Corps Drive Suite 202 Tamuning GU 96913
T 671 472 6792 **F** 671 477 6229 **W** www.ghd.com

Bryan Ryley

From: Paul Baron
Sent: Friday, August 17, 2018 6:18 AM
To: Miguel C Bordallo; 'Kelly Clark'; 'Thomas Cruz'
Cc: 'John Davis'; Bryan Ryley; Joe Heitzler; Peggy DeZurik
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Importance: High

Miguel,
Thanks for the follow up. As you know, this is an audited rate prepared by a licensed accounting firm meeting FARS standards, which was intended to avoid issues like this but I will defer to your request.

From my perspective I thought we were giving GWA a deal but if you want us to account for it manually we will. Note, the typical field costs for consumables is closer to $11/hr, I am not sure exactly where the real costs may fall but it is quite possible that it will exceed the $4.38/hr when we track it manually.

We will follow up with the revision to document this for the expensable items along with the other expenses we are carrying (subs, QA testing etc.) that still needs to be formally documented in the mod. We have over two months of invoices that have been on hold due to this and we really need to get them processed.

Thanks and Regards
Paul

From: Miguel C Bordallo <mcbordallo@guamwaterworks.org>
Sent: Wednesday, 15 August 2018 3:49 PM
To: Paul Baron <Paul.Baron@ghd.com>; 'Kelly Clark' <koclark@guamwaterworks.org>; 'Thomas Cruz' <thomas@guamwaterworks.org>
Cc: 'John Davis' <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; Peggy DeZurik <Peggy.DeZurik@ghd.com>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Paul,

Based on the information provided, GHDs contention is that for each hour one of your employees works at the project site, that person is burning through $4.38 of consumables This includes "all printing, phone, fax, internet, and other consumables for GHD."

For the four positions other than the PM working full time on our project, that is about $2800/month on consumables, which represents 5% of total loaded labor costs for those 4 positions, or 14% of total direct labor costs for those 4 people.

That figure appears excessive from my perspective, especially at this stage of the project. However, GWA does not object for consumables to be billed as a T&M expenses with the proper documentation.

MCB

From: Paul Baron <Paul.Baron@ghd.com>
Sent: Monday, August 6, 2018 6:56 PM
To: Miguel C Bordallo <mcbordallo@guamwaterworks.org>; 'Kelly Clark' <koclark@guamwaterworks.org>; 'Thomas Cruz' <thomas@guamwaterworks.org>
Cc: 'John Davis' <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; Peggy DeZurik <Peggy.DeZurik@ghd.com>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Let me know if you have had a chance to look at this.
Regards
Paul

From: Paul Baron
Sent: Thursday, 2 August 2018 11:56 AM
To: 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>; 'Kelly Clark' <koclark@guamwaterworks.org>; 'Thomas Cruz' <thomas@guamwaterworks.org>
Cc: 'John Davis' <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; Peggy DeZurik <Peggy.DeZurik@ghd.com>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Miguel,
I Just got the feedback from our accounting:

1. All jobs bear the cost of the consumables, and for every hour worked (on any job) we transfer $4.38 out of overhead. If the cost recovery only accounted for projects where the consumables was paid by the client (for instance, projects where we get a higher labor rate per hour but don't invoice for consumables) the overhead rate would be higher.
2. The direct amount described in the second highlighted segment is $4.38 which is for office overhead. Thus, the standard $6 per hour includes a markup on the $4.38. Note this is for office overhead, field overhead is closer to $11 per hour but we do not have this audited yet.

Based on the above can we get the $4.38?

Let me know. I have copied Peggy Dezurick our Finance Manager who can answer any additional questions.
Regards
Paul

From: Miguel C Bordallo <mcbordallo@guamwaterworks.org>
Sent: Wednesday, 1 August 2018 11:49 AM
To: Paul Baron <Paul.Baron@ghd.com>; 'Kelly Clark' <koclark@guamwaterworks.org>; 'Thomas Cruz' <thomas@guamwaterworks.org>
Cc: 'John Davis' <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Questions:

The information below reads, "These costs are shown as a reduction to the indirect cost pool and are consistently charged to contracts whether or not such charges are reimbursed under the contract. Additionally the company records a reduction to the indirect cost pool based on a standard consumable rate for each direct labor hour charged to the project when allowed by the contract with the client."

1. Does the first highlighted segment mean that if GWA agrees to the hourly consumables charge, but other clients do not agree, that GWA is "subsidizing" the consumables for the other client?
2. Is the standard consumable rate described in the second highlighted segment, which is deducted from the indirect cost pool, the same as the consumable rate which is proposed to be charged to GWA?

From: Paul Baron <Paul.Baron@ghd.com>
Sent: Wednesday, August 1, 2018 11:28 AM
To: Kelly Clark <koclark@guamwaterworks.org>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>; 'Thomas Cruz' <thomas@guamwaterworks.org>
Cc: 'John Davis' <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Thanks. We will follow the 4.167% for the GRT. I have sent Miguel under separate cover our full audit with supplemental information regarding the consumable (sorry I just got a full copy of this myself). Below is an excerpt from the audit regarding our consumable charge. The consumables dollars are pulled out of our overhead (see the clip below) and transferred to direct costs. If we didn't use consumables our overhead rate would be higher. GHD has implemented a system of billing for telephone calls, photocopies, blue prints, etc. in the aggregate, on a per hour basis. Each year the total costs of phone calls, photocopies, faxes, company cars, and other project related in-house direct costs are compiled from our general ledger. The total is then divided by the number of hours worked during the same period. By dividing the total project-related direct in-house costs (ODC's) by the number of hours worked, both direct and indirect, we arrive at an average hourly cost to provide these services to our clients. Our subsequent analysis has proved this approach to be cost effective for our firm because we are not spending time logging and entering each of these individual activities – and cost effective for our clients as well. This calculation has been audited by DCAA, Cal Trans, and other government agencies, and has been approved by all.

Let me know your thoughts.

Regards

Paul

Marketing and advertising	277,019
Entertainment	142,026
Professional fees	1,994,699
Dues and subscriptions	222,625
Other expenses	909,146
Direct cost credit (Note 1)	(1,452,051)

Direct cost credit - Direct cost credit represents the charge to contracts for non-salary direct expenses including computer costs, CADD, reproduction, and equipment charges that were initially charged to the indirect cost pool. Charges are based on actual usage records times standard cost per usage. These costs are shown as a reduction to the indirect cost pool and are consistently charged to contracts whether or not such costs are reimbursed under the contract. Additionally, the Company records a reduction to the indirect cost pool based on a standard consumable rate for each direct labor hour charged to the project when allowed by the contract with the client.

From: Kelly Clark <koclark@guamwaterworks.org>
Sent: Tuesday, 31 July 2018 11:24 AM
To: 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>; 'Thomas Cruz' <thomas@guamwaterworks.org>
Cc: 'John Davis' <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

GRT applicability is prospective from the date the Gov signed the bill. Any bids opened before that date are not subject to the increase.

KC

GUAM WATERWORKS AUTHORITY

Put respetu,

Kelly O. Clark
General Counsel
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913
Telephone No.: (671) 300-6853 cell: 671-480-4224
E-mail address: koclark@guamwaterworks.org

The information contained in this message and any accompanying attachments may contain privileged, private and/or confidential information protected by local, state and federal law. This message and any attachments are intended for the designated recipient only. If you have received this information in error, please notify the sender immediately and return or destroy the information. You may contact sender at (671) 300-6853. This e-mail transmission and any attachments are believed to have been sent free of any virus or other defect that might affect any computer system into which it is received and opened. It is, however, the recipient's responsibility to ensure that the e-mail transmission and any attachments are virus free, and the sender accepts no responsibility for any damage that may in any way arise from their use.

From: Miguel C Bordallo <mcbordallo@guamwaterworks.org>
Sent: Tuesday, July 31, 2018 9:23 AM
To: 'Paul Baron' <Paul.Baron@ghd.com>; 'Thomas Cruz' <thomas@guamwaterworks.org>
Cc: 'John Davis' <jdavis@guamwaterworks.org>; 'Bryan Ryley' <Bryan.Ryley@ghd.com>; 'Joe Heitzler' <Joe.Heitzler@ghd.com>; 'Kelly Clark' <koclark@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Paul,

No increase in GRT is needed. My understanding is that the increase is not applicable to contracts entered into prior to the effective date of the increase. Please double-check this.

Please provide detail on how the $6/hr consumable charge was calculated prior to our agreeing to the charge.

MCB

From: Paul Baron <Paul.Baron@ghd.com>
Sent: Monday, July 30, 2018 3:33 PM

To: Thomas Cruz <thomas@guamwaterworks.org>
Cc: Miguel C Bordallo <mcbordallo@guamwaterworks.org>; John Davis <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; Kelly Clark <koclark@guamwaterworks.org>
Subject: Re: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Tom

Thanks for sending us the proposed rates. Although we were hoping for a little bit higher rates, we understand the current situation of project funding, and agree to the proposed mod. The following are a few clarifications that we would request GWA to consider:

1. We will separate out the GRT in the rates to get the "new billable rates" for invoicing in our system and then we'll add the GRT onto the total invoice amount. This won't change the net total GHD labor cost GWA proposed.

2. We should increase the GRT from 4.167% to 5.263% as it has been increased by the Government of Guam.

3. Based on our meeting with Miguel, we will also invoice for our incurred expenses (QA Services, monthly safety inspections, Site Camera's, Scheduler, Electrical Special Inspection, etc.). In addition we are requesting GWAs consideration to include the $6 per hour consumable charge for our labor which covers all printing, phone, fax, internet, and other consumables for GHD. I don't think we discussed the consumable charge with Miguel but it is part of the audit that was used to determine the rates.

Let us know if this is acceptable as we would like to proceed with preparation and submittal of our May and June 2018 invoicing.

Thank you,

Regards

Paul

On Jul 18, 2018, at 6:40 PM, Thomas Cruz <thomas@guamwaterworks.org> wrote:

> Paul,
> Attached for your review and refence is a spreadsheet that calculates what GWA accepts for invoice rates for positions that are related to the above subject. I will work with my staff to get this official via a Change Order 4A. Additionally, GWA is amenable that you not make any adjustment to the invoice that is currently with GWA given your concern that this invoice is linked to your company's last fiscal year ending. GWA will expect though that subsequent invoices will follow the rates calculated and that your invoices will not exceed contract modification approval amounts.
>
> We can definitely discuss further if you have any question. Please be advised GWA will be close July 20th in observance of Liberation Day.

Thomas Cruz, P.E.
Chief Engineer
(671) 300-6036

From: Miguel C Bordallo <mcbordallo@guamwaterworks.org>
Sent: Wednesday, July 18, 2018 5:37 PM
To: 'Paul Baron' <Paul.Baron@ghd.com>; 'John Davis ' <jdavis@guamwaterworks.org>; 'Bryan Ryley' <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'Joe Heitzler' <Joe.Heitzler@ghd.com>; 'Kelly Clark' <koclark@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Paul,

GWA will issue a Mod4A to clarify and address the acceptable OH&P for T&M invoices. As I understand it, Mod5 will follow and reflect the change in your rates with your new FY. Tom will be packaging this and will coordinate any issues related to your request at our last meeting.

Regards,

MCB

From: Paul Baron <Paul.Baron@ghd.com>
Sent: Wednesday, July 11, 2018 3:15 PM
To: Miguel C Bordallo <mcbordallo@guamwaterworks.org>; 'John Davis ' <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Kelly Clark' <koclark@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Here is blended direct for the positions, note July 1 was beginning of FY and raises become effective. Coming over now.
Regards
Paul

	Rate Through 6/30/18	Rate Effective 7/1/2018
1. Project Manager	$ 72.98	$ 74.52
2. Structural/Special Inspector	$ 55.00	$ 55.66
3. Civil Inspector/Structural	$ 30.80	$ 31.47
4. Asst. Project Manager	$ 32.68	$ 33.34
5. Civil Inspector	$ 30.80	$ 31.47
6. Submittal/RFI Manager	$ 27.20	$ 28.22

From: Miguel C Bordallo <mcbordallo@guamwaterworks.org>
Sent: Wednesday, 11 July 2018 1:31 PM
To: Paul Baron <Paul.Baron@ghd.com>; 'John Davis ' <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Kelly Clark' <koclark@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Paul,

Please provide direct hourly labor rates for the following individuals (April Invoice):

1. Bryan Ryley
2. Jeff Groom
3. Joseph Wu
4. Steven Carbullido
5. Ramon Calilung
6. Rodolfo Miaco
7. Heidi Cervania

In the alternate, please provide a direct hourly composite rate for the following positions (Original Fee Proposal):

1. Project Manager
2. Structural/Special Inspector
3. Civil Inspector/Structural
4. Asst. Project Manager
5. Civil Inspector
6. Submittal/RFI Manager

I have reviewed the audit provided and have what I believe to be an acceptable OH rate in hand, but want to calculate the hourly rates to evaluate against positions we are being invoiced for. Trying to expedite resolution on this matter and appreciate your patience.

Regards,

MCB

From: Paul Baron <Paul.Baron@ghd.com>
Sent: Monday, July 9, 2018 5:00 PM
To: John Davis <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

I did meet with Miguel, I believe he has everything he requested from me to evaluate the issue. I believe Bryan is asking if you have everything that you requested below, which I believe you do but let us know.
Regards
Paul

From: John Davis <jdavis@guamwaterworks.org>
Sent: Monday, 9 July 2018 4:56 PM
To: Bryan Ryley <Bryan.Ryley@ghd.com>; Paul Baron <Paul.Baron@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Bryan,

My understanding was that Mr. Baron intended to make an appeal to "…Miguel and upper management" (per June 6 email.) I have not been informed of the outcome of this appeal. Please clarify.

Thank you.

<image004.png>

J. McArthur Davis, PE
Civil Engineering Supervisor
671-300-6041

From: Bryan Ryley [mailto:Bryan.Ryley@ghd.com]
Sent: Monday, July 09, 2018 9:43 AM
To: John Davis <jdavis@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

Mr. Davis,

Kindly advise the status for processing of Payment Application No. 31 for work completed April 01 through April 30, 2018.

Thank you,

Bryan J. Ryley
Construction Manager

GHD
T: 671 472-6792 | F: 671 477-6229 | M: 671 797-3336 | VOIP: 860132 | E: bryan.ryley@ghd.com
865 South Marine Corps Drive, Suite 202, Tamuning, Guam 96913 USA | www.ghd.com

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

Please consider our environment before printing this email

From: Bryan Ryley
Sent: Friday, June 29, 2018 7:02 PM
To: John Davis <jdavis@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven

Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018):Revised>>J DAVIS RESPONSE 29JUN18

Mr. Davis,

Please see attached.

Thank you,

Bryan J. Ryley
Construction Manager

GHD
T: 671 472-6792 | F: 671 477-6229 | M: 671 797-3336 | VOIP: 860132 | E: bryan.ryley@ghd.com
865 South Marine Corps Drive, Suite 202, Tamuning, Guam 96913 USA | www.ghd.com

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Please consider our environment before printing this email

From: John Davis <jdavis@guamwaterworks.org>
Sent: Friday, June 29, 2018 3:22 PM
To: Bryan Ryley <Bryan.Ryley@ghd.com>; Paul Baron <Paul.Baron@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018):Revised>>J DAVIS RESPONSE 29JUN18

Bryan,

Unfortunately, the approval of this invoice cannot be expeditious as the supporting paperwork/invoices are scattered through about 300 pages, and are not summarized in a fashion that can be readily verified. More importantly, **the overhead and profit *per centage* on wages and expenses has not been established**.

Kindly perform the following actions so that this invoice may be processed:

- Help establish an OH&P rate that is acceptable to GWA and GHD managers;
  GHD: Attached are our various standard labor rates. Pick the column you are most comfortable with.

- Identify the invoice as No. 31 (not no. 32);
  GHD: Noted and corrected.

- Summarize the hours for each person on a single sheet;
  GHD: The requested hours worked by each staff person were provided as the 11th sheet of the previously submitted payment application. We have also provided it as a separate attachment to this email.

- Summarize the expenses by itemizing each separate expenditure on a single sheet;

GHD: All the expenses were provided with itemized summaries in the previously submitted payment application. To assist your review we have provided a single sheet summarizing all the expense, listed each expense in the table of contents, provided reference letter for each expense correlating to the "single sheet expense summary". In addition, we have also provided it as a separate attachment to this email. Also, hard copies of same were provided in the first submittal package.

- For future invoices, indicate the number of hours each day each employee charges to a specific task;
  GHD: Sure, we can provide the same "Labor Summary per Task" as provide in the previous application and attached.

- Several expense items were paid previously by GWA and will need to be omitted.
  GHD: Kindly identify the expenses you believe have been previously invoiced and we will review.

Thank you for your cooperation.
John

<image004.png>

J. McArthur Davis, PE
Civil Engineering Supervisor
671-300-6041

From: Bryan Ryley [mailto:Bryan.Ryley@ghd.com]
Sent: Friday, June 22, 2018 7:56 PM
To: John Davis <jdavis@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018):Revised

John,

Please revised April 2018 invoice for the Agat-Santa Rita WWTP Replacement Project. Thank you for your patients and support. We can meet if you would like to discuss the details. Otherwise, we look forward to your favorable and expeditious approval of this revised invoice. Please do not hesitate to contact me directly should you have any questions or concerns. Have a nice weekend.

Thank you,

Bryan J. Ryley
Construction Manager

GHD

T: 671 472-6792 | F: 671 477-6229 | M: 671 797-3336 | VOIP: 860132 | E: bryan.ryley@ghd.com
865 South Marine Corps Drive, Suite 202, Tamuning, Guam 96913 USA | www.ghd.com

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Please consider our environment before printing this email

From: John Davis <jdavis@guamwaterworks.org>
Sent: Friday, June 22, 2018 6:02 PM
To: Paul Baron <Paul.Baron@ghd.com>; Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)::REJECTED

Paul, Bryan,

Has any progress been made on this issue?

Thanks,
John

From: Paul Baron [mailto:Paul.Baron@ghd.com]
Sent: Wednesday, June 06, 2018 1:26 PM
To: John Davis <jdavis@guamwaterworks.org>; Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)::REJECTED
Importance: High

John,
We are appealing your decision on this to Miguel and upper management.

Bryan
Please proceed accordingly to follow up on our side with legal and contracts as well to arrange for a meeting.
Regards
Paul

From: John Davis <jdavis@guamwaterworks.org>
Sent: Wednesday, 6 June 2018 1:22 PM
To: Bryan Ryley <Bryan.Ryley@ghd.com>
Cc: ''Thomas Cruz'' <thomas@guamwaterworks.org>; 'rcarino' <rcarino@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>; 'Miguel C Bordallo' <mcbordallo@guamwaterworks.org>
Subject: RE: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)::REJECTED

Hafa Adai Bryan,

We have unfortunately overlooked agreeing upon an OH&D markup for salaries. Since this contract is now on a Time and Materials basis, an agreed mark-up *per centage* for salaries and expenses must be established. The previous markup of approx. 200% for salaries can no longer be maintained. {Note that this 200% markup for overhead and profit now accounts for over $2M in payments.} Also note that my position may be appealed to GWA's upper management.

Kindly also provide how much time that staff devotes to each SOW item. This is important to justify the need for six fulltime staff.

This issue can be included on today's monthly project meeting, or discussed at a separate meeting.

Thank you for your cooperation.
John

<image004.png>

J. McArthur Davis, PE
Civil Engineering Supervisor
671-300-6041

From: Bryan Ryley [mailto:Bryan.Ryley@ghd.com]
Sent: Monday, June 04, 2018 3:20 PM
To: GWA - John Davis <jdavis@guamwaterworks.org>
Cc: 'Thomas Cruz' (thomas@guamwaterworks.org) <thomas@guamwaterworks.org>; rcarino <rcarino@guamwaterworks.org>; Paul Baron <Paul.Baron@ghd.com>; Steven Carbullido <Steven.Carbullido@ghd.com>; Joe Heitzler <Joe.Heitzler@ghd.com>
Subject: Agat-Santa Rita WWTP Replacement (GHD Progress Billing April 01 through April 30, 2018)

June 4, 2018
Mr. John Davis, P.E.
Guam Waterworks Authority
Gloria B. Nelson Public Utilities Complex
Route 15, Mangilao, Guam

Re: Agat WWTP Replacement Construction Management for Agat WWTP Replacement Project No. S14-002-BND, GHD April 2018 Invoice No. 100786

Dear Mr. Davis,

Please find attached **Invoice No. 100786** for CM Services from April 1, 2018 through April 30, 2018 in the amount of ***Two Hundred Eight Thousand Nine Hundred Fifty-Five Dollars and 15/100 ($208,955.15).*** This consists of $141,007.50 in GHD labor, $34,074.69 in expenses for April 2018, and $23,425.50 in expenses related to the additional work for the Clearing and Grading Phase authorized under MOD 04. As agreed to with GWA, work performed during this period has been performed on a time and material basis and includes, but was not limited to, the following:

Project administration, implementation & maintenance of project controls, project correspondence, review and processing of submittals & shop drawings, payment request, conduct weekly progress meetings, review and process requests for information, general compliance monitoring, claims and disputes, maintain project records & document management, construction inspection and quality control monitoring.

We have itemized each of the SOW tasks performed by each staff member and sub consultants. As discussed with you previously, the tasks have not changed, just the duration for which our services were performed as this is driven directly by the Contractor's performance.

A hardcopy with appendices will be submitted to your office tomorrow. Please do not hesitate to contact me directly should you have any questions or concerns.

Thank you,

Bryan J. Ryley
Construction Manager

GHD
T: 671 472-6792 | F: 671 477-6229 | M: 671 797-3336 | VOIP: 860132 | E: bryan.ryley@ghd.com
865 South Marine Corps Drive, Suite 202, Tamuning, Guam 96913 USA | www.ghd.com

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Attachments: Invoice 97869, Detailed Spread Sheet, Monthly Progress Report

_____
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<MCB OH Calcs 2018JUL13.xlsx>

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EXHIBIT 10:
GHD Corporate 2018 Fee Schedule and Chargeout List for Reproduction Supplies

GHD Inc.
865 South Marine Corps Drive Suite 202 Tamuning GU 96913
T 671 472 6792 **F** 671 477 6229 **W** www.ghd.com

2018 Fee Schedule

Notes:

1) Rates are for employees of GHD companies.

2) Mileage rates are consistent with current IRS/Canada Revenue Agency rates, which is the rate at which employees are reimbursed.

3) Company owned vehicle rate is $80.00/Day plus $0.28/mile (USA) or $0.24/km (CDN).

4) Travel charges are identified under disbursements and are passed through directly as incurred, all travel via common carrier being at coach class rates.

5) Accommodation expenses are identified under disbursements and are passed through directly as incurred. Lodging costs and meal allowances for each full day depend on the area.

6) Photocopy charges are $0.10 per page.

7) Color photocopy charges are $0.25 per page.

8) Information Technology is billed at $4.50 per hour per person.

9) Specialized Computer Application is billed at $15.00 per hour.

10) Other Office and Field Supplies are charged at standardized rates and are available upon request.

11) Other project related out of office disbursements, expenses, and subcontractor costs will be invoiced with a markup of 15%.

12) Fee schedule is subject to change on January 1, 2019.

Chargeout List for Reproduction Supplies

Display Materials:

Laminates - 8 ½" x 11"	$1.50
Laminates - 11" x 17"	$2.50
Recordable Compact Disk	$2.00
Disc Labels	$1.00
Flash Drives (1GB)	$10.00

Color Photocopies:

8 ½" x 11" size/11" x 17" size on Bond	$0.30

Black & White Photocopies:

8 ½" x 11" size/11" x 17" size	$0.10/copy

Printed Plots:

24" x 36" or 36" x 48" Monochrome Laser	$0.25/sq. ft.
Line Drawings Color 24” X 36” or 36” X 48” Color	$2.00/sq. ft.
Full Graphic Color Oversize	$3.50/sq. ft.

Printing Supplies:

Cover Stock (Front & Back Set)	$0.75
Coverbind Cover Sets	$5.00
Plastic Pockets	$2.00
Binders - 1"	$7.50
Binders - 1 ½"	$8.50
Binders - 2"	$9.50
Binders - 3"	$11.50
Binders - 3 ½" and up	$14.00

Tabs:

Figures, Tables, Appendices (A, B, C, etc.), Sections (1, 2, 3, etc.)	$0.40/Tab

Digital Equipment:

Digital Camera	$10/day, $35/week, $100/month

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. 08-FY2019
Relative to Approval of Change Order to the Agat Santa Rita Wastewater Treatment Plant Replacement Design Contract

What is the project's objective and is it necessary and urgent?
The design services change order will allow for a continuity of design services during construction as it relates to any construction extension at the Agat Santa Rita WWTP Upgrades project due to contractor issues. The construction contractor, Sumitomo Mitsui Construction Company (SMCC), has submitted to GWA extension requests that will push the completion of the project to March 2019. The ending of the contractor activities would mean the design services during construction by the design engineer would end a couple of months thereafter to compile project documentation.

Where is the location?
The design services cover the new Agat Santa Rita WWTP Upgrades project in the village of Agat.

How much will it cost?
GWA management has received a fee proposal from DCA in the amount of Six Hundred Thousand Dollars ($600,000.00).

When will it be completed?
The construction contractors latest schedule shows the project completion will be by March 2019, thus the design services ending period would end a couple months thereafter.

What is the funding source?
The source of funding for the change order will be from the Bond proceeds under CIP WW 11-08 "Agat/Sta Rita STP Replacement", System Development Charge (SDC) Funds, and Internally Funded CIP Funds

The RFP/BID responses (if applicable):
Not Applicable.

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

GWA RESOLUTION NO. 08-FY2019

RELATIVE TO APPROVAL OF CHANGE ORDER TO THE AGAT-SANTA RITA WASTEWATER TREATMENT PLANT REPLACEMENT DESIGN CONTRACT

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

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

WHEREAS, GWA currently has a number of critical Court Order ("CO") projects, including Agat-Santa Rita Wastewater Treatment Plant (WWTP) (U.S. Court Order No. 02-00035, Section II.A) which was recommended to require improvements that ultimately resulted in GWA designing and constructing a new WWTP; and

WHEREAS, The CCU approved via Resolution 34-FY2014 for GWA management to enter into contract with Duenas Camacho and Associates (DCA) to provide professional engineering services for design of the Agat-Santa Rita Wastewater Treatment Plant Replacement project, as well as design services during construction; and

WHEREAS, the above noted resolution approved the contract fee of Four Million Five Hundred Three Thousand Six Hundred Twenty-Three Dollars and Seventy-Four Cents ($4,503,623.74), along with a five percent (5%) contingency of Two Hundred Twenty-Five Thousand One Hundred Eighty-One Dollars and Nineteen Cents ($225,181.19) to bring the total authorized funding amount to Four Million Seven Hundred Twenty-Eight Thousand Eight Hundred Four Dollars and Ninety-Three Cents ($4,728,804.93).; and

DRAFT

WHEREAS, to date GWA has executed two change orders with Duenas Camacho and Associates for additional services that expended all the approved contingency fund and which is expected to be exhausted by the end of January 2018; and

WHEREAS, the CCU approved via Resolution 14-FY2018 an additional Three Hundred Ninety-Eight Thousand Six Hundred Ninety-Two Dollars and Thirty-Two Cents ($398,692.32) to retain DCA's services through July 15, 2018; and

WHEREAS, the construction work in the second phase of the project has progressed slower than anticipated, due primarily to manpower shortages, and it is now estimated that all site improvements (including non-process related construction, landscaping, etc.) will be completed in March 2019; and

WHEREAS, GWA management seeks to issue a Change Order (No. 4) to the existing contract with DCA to extend its engineering services to provide ongoing designer review of submittals and RFIs, post-design/construction issues, and to provide operator training to GWA staff; and

WHEREAS, GWA engineering has negotiated with DCA to provide continued post-design / construction services (per the original contract scope of work) through April 2019, and prepare an Operations Manual and provide operator training, on a time and material (T&M) basis in an amount not-to-exceed (NTE) Six Hundred Thousand Dollars ($600,000.00); which is acceptable to GWA management (See Exhibit A); and

WHEREAS, GWA seeks CCU approval of the Change Order to provide continued design services during construction at a cost not to exceed Six Hundred Thousand Dollars ($600,000.00) which would bring the total authorized contract value to Five Million Seven Hundred Twenty-Seven Thousand Four Hundred Ninety-Seven Dollars and Twenty-Five Cents ($5,727,497.25); and

DRAFT

WHEREAS, the source of funding for the change order will be from the Bond proceeds under CIP WW 11-08 "Agat/Sta Rita STP Replacement", System Development Charge (SDC) Funds, and Internally Funded CIP Funds; and

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

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the change order proposal submitted by Duenas Camacho and Associates to be fair and reasonable.
3. The CCU hereby authorizes the management of GWA to accept the change order proposal from "Duenas Camacho and Associates" attached hereto as Exhibit A, and which is incorporated into this Resolution in its entirety.
4. The CCU hereby further authorizes the management to execute the change order with Duenas Camacho and Associates, in the amount of not to exceed Six Hundred Thousand Dollars ($600,000.00) (Exhibit A).
5. The CCU hereby further approves the increase contract value of Five Million Seven Hundred Twenty-Seven Thousand Four Hundred Ninety-Seven Dollars and Twenty-Five Cents ($5,727,497.25);
6. The CCU hereby further approves the source of funding from Bond proceeds under CIP WW 11-08 "Agat/Sta Rita STP Replacement", System Development Charge (SDC) Funds, and Internally Funded CIP Funds.

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

DULY AND REGULARLY ADOPTED, this 27rd day of November, 2018.

Certified by:

_____
JOSEPH T. DUENAS
Chairperson

Attested by:

_____
J. GEORGE BAMBA
Secretary

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

///

///

///

///

///

///

DRAFT

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

DUEÑAS · CAMACHO & Associates, Inc

EXHIBIT A

November 19, 2018

Thomas F. Cruz, P.E.
Chief Engineer
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam, 96913

Attn: John M. Davis, P.E., Senior Engineering Supervisor

Ref: **Agat-Santa Rita Wastewater Treatment Plant (WWTP) Replacement Design**

Subj: **Change Order Request #4, Contract No. S14-002-BND, Revision 1**

Dear Mr. Cruz:

Duenas, Camacho & Associates, Inc and our design team have been providing continuous post design services for the referenced project. In order for our team to provide and continue the services needed for the ongoing construction efforts and the up coming start up and commissioning of the Agat-Santa Rita WWTP Phase II construction efforts, we are requesting a change order to increase our time and materials (T&M) limit based on the following.

- Addition RFI Review. The total number of RFIs to date for the project is 612, see attachment 1. As the designer of record, our team was asked to review nearly all the submitted RFIs. Our team provided and will continue to provide responses for the RFIs.

- Additional Submittal Review. As part of the construction support, the design team has reviewed up to 786 submittals to date, see attachment 1.

- Focused Meetings. Personnel from our design team attend the weekly meetings and participate in focused weekly meetings. These meetings have resulted in improved construction and response times. Our design team recommends that these weekly meetings continue until substantial completion of the project.

Additional Time and Service Request.

It is estimated that the design team services will be needed up to and at least two months past construction completion. We estimate that this will be ten (10) months from June 2018. Based on our past T&M billings the monthly billing used is approximately $50,000. The additional not to exceed effort for our T&M post design services is $500,000.

Standard Operating Procedures

As part of our initial project scope of work we were asked to provide standard operating procedures and manuals under our post design, T&M service. In order to complete this task we request that an

November 19, 2018

additional amount of $100,000 be added to our T&M agreement. In addition to this amount, effort from the monthly services may be used as we do not expect RFI and submittal review to continue past January 2019. Effort will shift to providing a use friendly manual depicting the currently installed equipment.

The total amount requested by this change order request:

Additional Time and Services Request:	$500,000.00
Phase I Start Up Training and Support:	$100,000.00
Total:	$600,000.00

As part of this request we recommended that our post design services not to exceed amount be increased by **$600,000.00** to continue providing uninterrupted service. This not to exceed increase request will bring the design team post design services amount to $2,059,661.21. This is less than 4% of the total construction cost to date.

Our design team is available to further discuss any comments or questions GWA may have to this change order request.

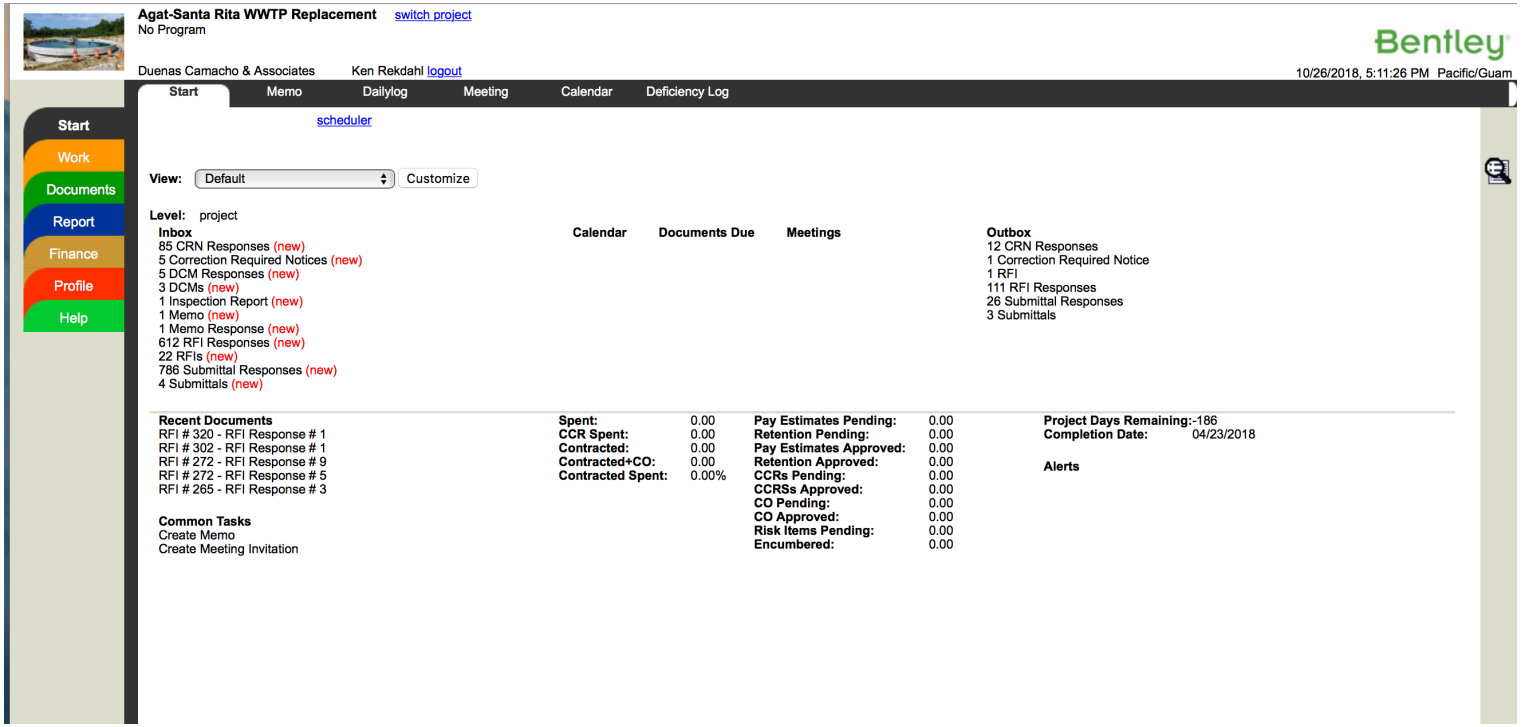
Thank you,

Kenneth M. Rekdahl, P.E.
Project Manger
Duenas, Camacho & Associates, Inc.

Attachment (1): Submittal and RFI Summary

ENGINEERING * PLANNING * SURVEYING * ENVIRONMENTAL SERVICES * GEOGRAPHIC INFORMATION SYSTEM * CONSTRUCTION MANAGEMENT
GUAM P.O. Box 8900, Tamuning, Guam 96931 / 238 E. Marine Corps Drive, Suite 201 Diamond Plaza, Hagatña, GU 96910 / Tel: (671) 477-7991 / Fax: (671) 479-6315
SAIPAN Caller Box PPP, Suite 164, Saipan, MP 96950 / Chalan Pale Arnold, Ada's Building South Garapan, Saipan 96950 / Tel: (670) 234-9017 / Fax: (670) 234-3842

ATTACHMENT 1



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. 09-FY2019
Relative to Approval of Change Order to the Construction Management Contract for the Baza Gardens Wastewater Cross Island Pumping and Conveyance System (Phase I, II & III)

What is the project's objective and is it necessary and urgent?
The construction management change order(s) for CM services will allow for a continuity of services as it relates to any construction extension at the Baza Gardens wastewater conveyance project due to contractor issues. The construction contractor for Phase III, Sumitomo Mitsui Construction Company (SMCC), has submitted to GWA extension requests that will push the completion of the project to April 2019. GWA management is still reviewing the claims made by the Contractor and will respond accordingly.

Where is the location?
The CM services covers the Baza Gardens WWTP, new sewer conveyance system along Route 17 and Route 5 and in towards the new Agat-Santa Rita WWTP.

How much will it cost?
GWA management has received a fee proposal from SSFM in the amount of Seven Hundred One Thousand Six Hundred Five Dollars and Fifty-Nine Cents ($701,605.59), however GWA will be negotiating down this fee proposal given the level of staffing and construction activities will ramp down towards the end of the construction period. Due to the timing of approvals GWA management is still seeking CCU approval for a funding increase to a not-to-exceed amount of Three Hundred One Thousand Five Hundred Sixty-Four Dollars and Fifty-Nine Cents ($301,564.59). For clarification GWA has authorized funding for SSFM of Two Million Eight Hundred Seventy-One Thousand Dollars and Zero Cents ($2,871,000.00) and the current contract value with SSFM is Two Million Four Hundred Seventy Thousand Nine Hundred Fifty-Nine Dollars and Zero Cents ($2,470,959.00). The $301,564.59 is the additional funding authorization needed to account for the SSFM's $701,605.59 proposal.

When will it be completed?
The construction contractors latest schedule shows the project completion will be by April 2019.

What is the funding source?
Funding for any Change Order to SSFM's contract moving forward will be from any available bond funds under the line item - WW 11-03 "Baza Gardens STP Replacement", System Development Charge funds and Internally Funded CIP funds as well as Liquidated Damages of $3,000 per day from the contractor.

The RFP/BID responses (if applicable):
Not Applicable.

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

RESOLUTION NO. 09-FY2019

RELATIVE TO APPROVAL OF CHANGE ORDER TO THE CONSTRUCTION MANAGEMENT CONTRACT FOR THE BAZA GARDENS WASTEWATER CROSS-ISLAND PUMPING AND CONVEYANCE SYSTEM (PHASES I, II&III)

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 currently has a number of critical Court Order ("CO") projects including a complete evaluation of the Baza Gardens WWTP to determine what improvements are necessary at the plant to achieve compliance with the WWTP's NDPES permit, as stated in Paragraph 13 of the 2011 Court Order, as well as the completion of construction activities that were identified in the approved plan resulting from the evaluation noted above as stated in Paragraph 14 of the 2011 Court Order ; and

WHEREAS, the system evaluation report required under Paragraph 13 and completed in April of 2014 by GWA's Program Management Office (PMO), Brown and Caldwell, resulted in a recommendation to GWA and the USEPA that transferring/conveying the Baza Gardens WWTP effluent flow across the Route 17 (Cross Island Road) to a new Agat-Santa Rita WWTP site was the recommended conceptual alternative to which this recommendation was found to be acceptable by all parties; and

WHEREAS, in September of 2015 GWA began the procurement process to find a consulting engineering team to design the wastewater conveyance system and via Resolution 06-FY16, approved by the CCU in October of 2015, GWA management was authorized to enter into

a contract with Duenas Camacho and Associates to design the wastewater conveyance and pumping system which includes new Sewer Pump Station (SPS), gravity mains, force mains and all incidentals and appurtenances to these main components; and

WHEREAS, GWA executed three separate construction contracts (Phases I, II&III) with Sumitomo Mitsui Construction Company (SMCC) and BME &Sons Incorporated (BME) to construct the new Conveyance System by April 16, 2018, per CCU Resolutions 01-FY2017, 13-FY2017 and 29-FY2017); and

WHEREAS, CCU Resolution 02-FY2017 also authorized GWA to execute a contract with SSFM, Inc. (SSFM) to provide construction management services and wherein the resolution included a total authorized amount of Two Million Eight Hundred Seventy-One Thousand Dollars ($2,871,000.00); and

WHEREAS, GWA had executed the original contract with SSFM for an amount of Two Million Two Hundred Eighty-Five Thousand Two Hundred Sixty-Eight Dollars ($2,285,268.00) and Change Order #1 in the amount of One Hundred Eighty-Five Thousand Six Hundred Ninety-One Dollars ($185,691.00) for a total contract value of Two Million Four Hundred Seventy Thousand Nine Hundred Fifty-Nine Dollars ($2,470,959.00) to date; and

WHEREAS, the contractor for Phase III, SMCC, has submitted documentation to GWA management (See Exhibit A) wherein they are stating the completion of their portion of the project will not be completed until April 2019 and the reason for this delay is due to inclement weather and the shortage of construction workers; and

WHEREAS, notwithstanding the issues surrounding one of the contractor's delay and a means of allowing for continuity of construction management services as it relates to any construction extension due to contractor issues, GWA requested SSFM submit a fee proposal to continue construction management services for which SSFM provided to GWA a Seven Hundred One Thousand Six Hundred Five Dollars and Fifty-Nine Cents ($701,605.59) fee proposal (See Exhibit B) for continuation of CM services from October 2018 through April 2019; and

WHEREAS, GWA management will be negotiating down the fee proposal submitted by SSFM given the level of staffing and construction activities will ramp down towards the end of the construction period but until final negotiated fees are reached GWA management still seeks CCU approval of additional funding to execute Change Order(s) to a not-to-exceed the amount of Three Hundred One Thousand Five Hundred Sixty Four Dollars and Fifty Nine Cents ($301,564.59) for the extended contract performance period because the timing of any change order approval may not coincide with scheduled CCU meetings; and

WHEREAS, funding for any Change Order to SSFM moving forward will be from any available bond funds under the line item - WW 11-03 "Baza Gardens STP Replacement", System Development Charge funds and Internally Funded CIP funds as well as Liquidated Damages of $3,000 per day from the contractor; 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 approves the funding increase for construction management services to an amount not to exceed Three Hundred One Thousand Five Hundred Sixty-Four Dollars and Fifty-Nine Cents ($301,564.59) (Exhibit B).
3. The CCU further approves the total contract value for SSFM is an amount not to exceed Three Million One Hundred Seventy-Two Thousand Five Hundred Sixty-Four Dollars and Fifty-Nine Cents ($3,172,564.59)
4. The source of funding for any Change Order to SSFM moving forward will be from any available bond funds under the line item - WW 11-03 "Baza Gardens STP Replacement", System Development Charge funds and Internally Funded CIP funds as well as Liquidated Damages of $3,000 per day from the contractor.

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

DULY AND REGULARLY ADOPTED, this 27th day of November 2018.

Certified by:

JOSEPH T. DUENAS
Chairperson

Attested by:

J. GEORGE BAMBA
Secretary

SECRETARY'S CERTIFICATE

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

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

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

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DRAFT

EXHIBIT A

SUMITOMO MITSUI CONSTRUCTION CO.,LTD.
Guam Office : P. O. Box 9670 Tamuning, Guam 96931

July 14, 2018 Reference : LT-18-032

GWA ENGINEERING DIVISION RECEIVED BY: 11:01 am JUL 16 2018 BY:

Mr. John Davis / Project Manager
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15, Mangilao Guam 96913

Project : **IFB-05-ENG-2017**
Baza Gardens Wastewater Cross-Island Pumping and Conveyance System Phase III
GWA Project No. S15-008-BND

Subject : Contract Time Extension Request

Dear Mr. Davis,

This is to request project contract time extension with following reason SMCC encountered in implementation of this project. Due to rejection of H-2B Temporary Alien Skilled workers, we were unable to obtain planned numbers of manpower, which is necessary to acquire to complete the project on time.

As shown in our baseline schedule, SMCC has planned to obtain total manpower of ***11,856*** man-days (Combination of Skilled & Unskilled) for the construction duration time of 300 calendar days from June 20, 2017 to April 16, 2018 to complete the project on time.

On the other hand, due to the H2B issue, we had been facing Island wide shortage of workers from the beginning to date. As a consequence, SMCC could obtain much less work force comparing to the original plan and cumulative total manpower expected to be ***3,680*** man-days at the end of July, 2018 from October 24, 2017 when the building permit was received on.

SMCC has been trying many efforts to minimize the delays with GWA and Project team's understanding and supports, such as using flowable fill and lean concrete instead of using soil and base course to accelerate back fill works. We also shorten the stand-by time to start removal of forms after concrete casting by using higher strength concrete than specified in design.

I believe SMCC attained considerable progress and accelerated the project as achievable as possible with those efforts.

We are also expecting some improvement on workers issue and it will increase our present manpower to a projected average total of at least 900 man-days/month for the project remaining contract scope of works. For this number of manpower, the project will be completed by April 30, 2019. Please see attached for details.

July 14, 2018
Mr. John Davis / Project Manager
IFB-05-ENG-2017
Baza Gardens Wastewater Cross-Island Pumping and Conveyance System Phase III
GWA Project No. S15-008-BND
Contract Time Extension Request

We therefore request a 270 Calendar day time extension that will revise the project completion time to April 30, 2019 due to the reason of delays mentioned above that could not be avoided and is beyond the control of SMCC.

Your kind consideration to this request would highly be appreciated.

Sincerely yours,

Takeyuki Shiino
General Manager

Cc: Rizaldy Cortez / SSFM

Sumitomo Mitsui Construction Co., Ltd.

PROJECT: GWA - Baza Gardens Phase III

MONTHLY MANPOWER BREAKDOWN			Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-17	Apr-18	May-18	Jun-18	Jul-18	Total Man-days
	DESCRIPTION	AMOUNT	June 20-30, 2017	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	
1	Project Mobilization	$ 658,136.00	20	52	52	52	52	52	52					332
2	Temporary Facilities	$ 451,233.00	30	78	78	78	78	78	78	78	78	78	78	810
3	Pump Station and conveyance system lay-out	$ 79,864.00	20	52	52	52	52	52	52	52	52	52	52	540
4	Equipment extended warranty	$ 286,063.00												0
5	Temporary environmental protection	$ 110,848.00	30	78	78	78	78	78	78	78	78	78	78	810
6	Temporary traffic control	$ 261,999.00	30	78	78	78	78	78	78					498
7	Site clearing	$ 24,432.00		52							52			104
8	Site grading	$ 133,335.00				52	52					52	52	208
9	Under Ground Storage Tank Removal and Disposal	$ 58,583.00							78					78
10	Building and Site Demolition and Disposal (Including removal of existing AC Pavement)	$ 182,251.00				78	78	78	78					312
11	Asbestos cement removal and pipe disposal (4 tons)	$ 29,471.00							78					78
12	Site access road and pavement	$ 313,386.00								78		78	78	234
13	Perimeter fence line and gates	$ 240,201.00						104			104	104	104	416
14	Site drainage improvements complete in place	$ 158,783.00				104	104	104			104	104	104	624
15	Headworks and pump station structure and finishings complete in place	$ 2,136,264.00		104	208	208	208	156	104					988
16	Parshall flume complete in place	$ 21,938.00						104						104
17	Rotary screen complete in place	$ 1,074,438.00						104						104
18	Grit removal system complete in place	$ 675,254.00							104					104
19	Wastewater pumps complete in place	$ 249,566.00							104					104
20	Pumpstation and headworks mechanical process piping, fittings and flow-meter installed complete in place	$ 101,478.00						104						104
21	Surge relief valve and vault complete in place	$ 22,014.00							104					104
22	Pump VFD's, controls and level sensor	$ 464,462.00							104					104

GWA Work Session - November 20, 2018 - ISSUES FOR DECISION

22	Pump VFD's, controls and level sensor													
23	Odor control unit	$ 96,440.00							104					104
24	Site water system complete in place	$ 112,650.00						104	104					208
25	Site process piping complete in place	$ 203,228.00						104			104	104	104	416
26	Site wastewater piping complete in place	$ 74,996.00						104	104					208
27	Force-main 1 10,481 of 10 inch PVC Pipe	$ 1,581,549.00				156	156	156	156					624
28	Force-main 1 road repair	$ 472,749.00							78	78				156
29	2-4inch PVC communication conduits and hand-hole complete in place	$ 734,510.00				130	130	130	130					520
30	New fiber optic line complete in place	$ 117,016.00							78	78				156
31	Site electrical inclusive of transformer, light poles, communication and power lines complete in place	$ 192,659.00						104			104	104	104	416
32	New standby generator building structure and finishings complete in place	$ 396,435.00					104	156	104					364
33	Standby generator installed complete in place	$ 106,320.00							78					78
34	Aboveground fuel tank complete in place	$ 62,119.00							78					78
35	Wastewater pump station and headworks start-up and testing	$ 94,136.00							78					78
36	Baza Gardens WWTP Facility Demolition	$ 196,718.00							78					78
37	Sludge removal and disposal (30 cubic yards)	$ 9,395.00							78					78
38	Equalization tank 2 complete in place	$ 2,690,986.00							104	208	208	208	104	832
39	Equalization tank 1 complete in place	$ 143,720.00								104	104	104	78	390
40	Project close-out	$ 511,267.00							78	78		78	78	312
	TOTAL	$ 15,530,892.00												
	PLAN (Man-days)		130	494	546	1066	1170	1950	2522	832	988	1144	1014	11856
	ACTUAL (Man-days)		52	104	156	234	416	456	390	520	468	468	416	3680
	NEEDED (Man-days)		78	390	390	832	754	1494	2132	312	520	676	598	8176

MANPOWER DAILY LOG: ACTUAL FROM SEPTEMBER 2017 to JULY 2018

Year 2018																															
Jan-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	TOTAL Man-days
Skilled	0	2	3	4	5	3	8	6	9	9	9	9	1	0	8	7	8	9	7	5	0	8	11	11	11	7	5	0	9	11	12	7.58	416
Unskilled	0	2	8	6	6	7	8	7	12	11	11	9	4	0	6	10	10	9	10	10	0	13	12	12	10	10	1	0	8	8	11	8.88	
Feb-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	16	15	5	0	13	10	9	9	11	3	0	13	14	15	10	6	4	2	6	5	6	11	7	9	3	10	11	11				9.08	456
Unskilled	15	14	4	0	11	12	10	8	14	4	0	12	11	17	11	6	7	5	10	10	9	10	10	15	0	9	11	12				10.08	
Mar-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	10	9	3	3	5	7	11	9	9	7	3	7	9	9	6	4	0	0	8	6	7	6	6	6	3	8	10	7	7	3	4	7.00	390
Unskilled	12	12	6	0	6	8	6	10	12	6	0	2	5	10	12	14	2	0	8	4	8	9	11	5	0	6	11	7	10	3	6	7.65	
Apr-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	3	10	10	14	11	10	9	3	9	9	10	10	9	9	3	9	11	11	11	10	7	2	8	14	15	14	11	9	2	9		10.76	520
Unskilled	0	6	9	9	8	7	5	0	7	9	10	18	12	6	0	7	7	10	8	9	6	2	8	16	14	14	8	3	0	9		9.08	
May-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	9	13	4	13	9	2	9	13	14	9	12	12	3	11	11	12	6	11	8	3	14	13	12	14	11	12	6	0	12	10		9.00	468
Unskilled	13	13	15	13	5	0	9	9	12	9	11	7	1	16	10	12	10	10	6	0	17	16	18	16	16	14	3	0	10	11		9.32	

Jun-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	17	14	3	14	11	12	12	12	11	2	11	11	11	11	11	11	2	11	12	12	12	11	10	2	11	11	13	12	11	11		9.61	468
Unskilled	11	10	1	12	9	11	10	10	8	0	9	9	8	9	10	9	0	11	11	11	10	12	11	0	12	9	10	10	9	6		7.97	

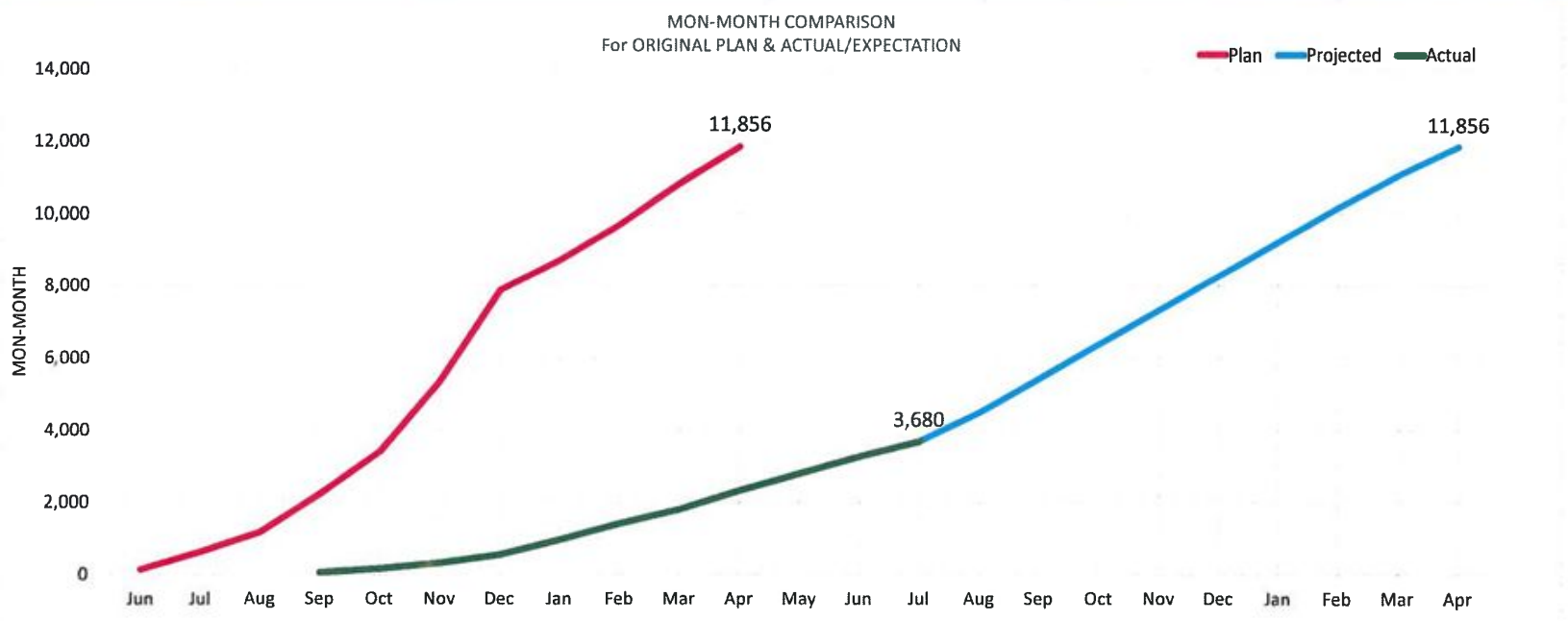
Jul-18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	3	9	9	0	0	9	9	2	9	9	9	9	9	9	2	9	9	9	9	9	9	2	9	9	9	9	9	9	2	9	9	7.23	416
Unskilled	2	9	12	0	0	8	8	1	12	12	12	12	12	12	1	12	12	12	12	12	12	1	12	12	12	12	12	12	1	12	12	9.06	

Year 2017																															
Sep-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	1	0	0	0	1	1	1	0	0	0	1	1	1	1	1	0	0	0	1	1	2	2	0	0	3	2	5	5	4	0		1.27	52
Unskilled	3	0	0	0	2	1	2	0	0	0	0	2	1	2	2	0	0	0	1	1	1	1	0	0	2	2	3	2	2	0		1.04	
Oct-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	0	4	1	3	3	3	2	0	3	4	5	5	2	0	0	3	3	0	2	2	0	0	2	2	3	3	3	0	0	3	3	2.46	104
Unskilled	0	3	0	2	2	2	2	0	2	2	2	2	2	0	0	0	2	0	2	0	0	0	2	2	0	2	2	0	0	2	2	1.42	
Nov-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	4	3	4	0	0	4	4	3	4	0	4	0	3	3	3	3	3	1	0	3	7	8	0	3	4	0	4	6	3	3		3.32	156
Unskilled	2	2	2	0	0	2	2	2	3	0	3	0	3	3	3	3	3	1	0	3	4	4	0	2	3	0	1	3	4	3		2.36	
Dec-17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average	
Skilled	2	1	0	2	2	2	5	5	4	1	5	5	6	6	6	3	0	4	7	9	6	3	0	0	0	2	3	3	3	2	0	3.80	234
Unskilled	3	2	0	2	4	5	7	6	1	0	7	8	7	8	8	4	0	4	9	11	11	7	2	0	0	3	5	5	5	1	0	5.28	

Total Man-days	3680

PROJECT: Baza Gardens Wastewater Cross-Island Pumping and Conveyance System Phase III
CONTRACTOR: Sumitomo Mitsui Construction Co., Ltd.

	2017							2018												2019				
Month	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total
Plan	130	494	546	1,066	1,170	1,950	2,522	832	988	1,144	1,014													11,856
Actual				52	104	156	234	416	456	390	520	468	468	416										3,680
Shortage				78	390	390	832	754	1,494	2,132	312	520	676	598										8,176
Projected															790	950	950	950	950	950	950	900	786	8,176



Total Needed Mandays to Complete = Total Plan minus Total Actual
= 11856 - 3,680
= 8176 Mandays needed to complete the project
= 1077.82 Average man-days/month based on original plan
Required months to complete the project = 9.08 Months (Considering SMCC could provide an average of 900 man-days/month)

GWA Work Session - November 20, 2018 - ISSUES FOR DECISION

EXHIBIT B

BAZA GARDENS WASTEWATER
CROSS ISLAND PUMPING AND CONVEYANCE SYSTEM
PROJECT NO. S15-008-BND

CO #2: CM EXTENSION OCTOBER 2018 TO APRIL 2019 (7 MONTHS)

STAFFING	Old Rate	Add 1% New GRT	UNIT	MONTHLY MANHOURS	October	November	December	January	February	March	April	Total
Principal	$ 215.00	$ 217.15	HOUR	10	$ 2,171.50	$ 2,171.50	$ 2,171.50	$ 2,171.50	$ 2,171.50	$ 2,171.50	$ 2,171.50	$ 15,200.50
Project Manager	215.00	217.15	HOUR	152	33,006.80	33,006.80	33,006.80	33,006.80	33,006.80	33,006.80	33,006.80	231,047.60
Resident Engineer	178.00	179.78	HOUR	184	33,079.52	33,079.52	33,079.52	33,079.52	33,079.52	33,079.52	33,079.52	231,556.64
Project Inspector	99.00	99.99	HOUR	253	25,297.47	25,297.47	25,297.47	25,297.47	25,297.47	25,297.47	25,297.47	177,082.29
Document Clerk	59.00	59.59	HOUR	112	6,674.08	6,674.08	6,674.08	6,674.08	6,674.08	6,674.08	6,674.08	46,718.56
Total					**$ 100,229.37**	**$ 100,229.37**	**$ 100,229.37**	**$ 100,229.37**	**$ 100,229.37**	**$ 100,229.37**	**$ 100,229.37**	**$ 701,605.59**

Note :
Rates :1% added to old rate due to new 5% GRT effective on Oct 01, 2018

GUAM WATERWORKS AUTHORITY

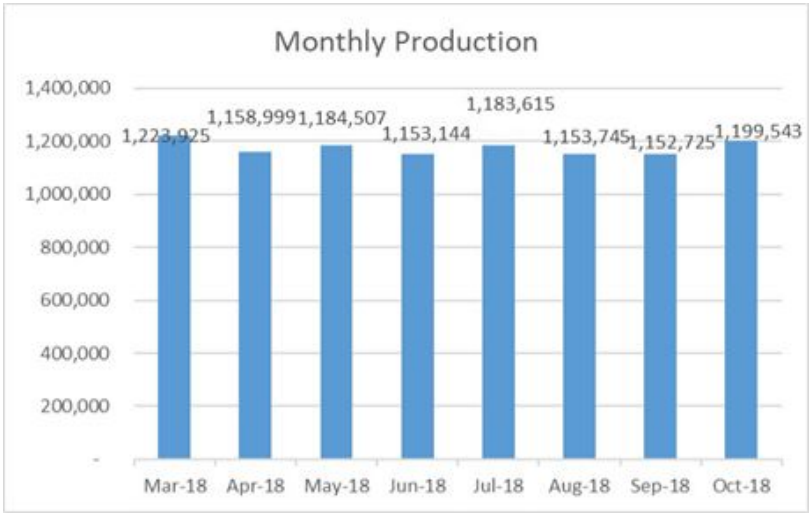
Management Report
GWA CCU Work Session, November 20, 2018

Operations Update

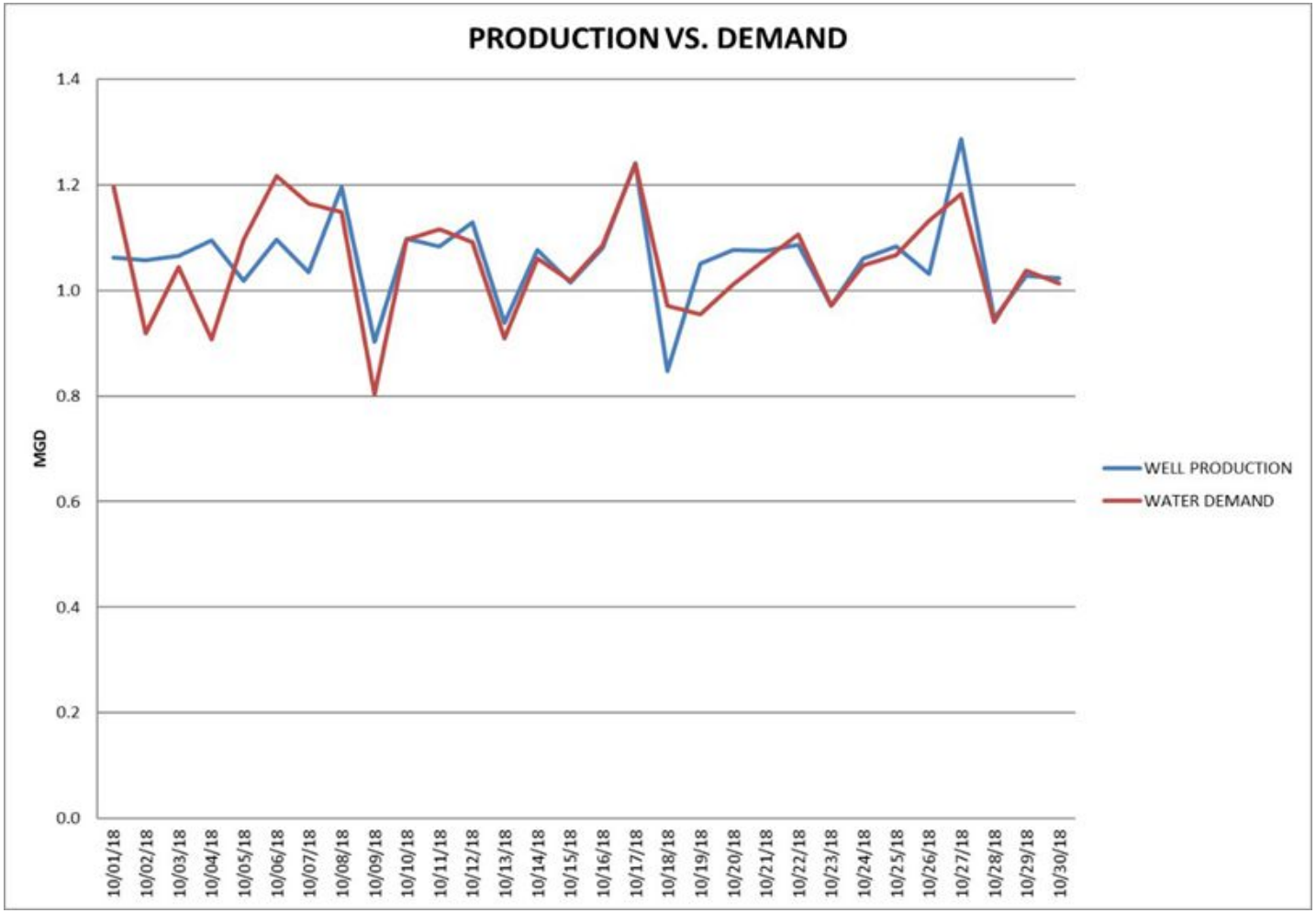
Production

Monthly Production Summary - October 2018					
Deep Wells				37.1	MGD
	Active wells =	92	of 120		
	Avg days in operation =	31	days		
	Total Production =	1,112,303	Kgals		
Springs				0.00	MGD
	Avg days in operation =	0	days	*placed on standby	
	Total Production =	0	Kgals		
Ugum Surface Water Plant				1.8	MGD
	Avg days in operation =	31	days		
	Total Production =	54,395	Kgals		
Tumon Maui Well				1.09	MGD
	Avg days in operation =	31	days		
	Total Production =	32,845	Kgals		
		1,199,543	Kgals	40.0	MGD

DW Status as of 10/31/2018	
Active	**92**
Grounded motor	**8**
Out of commission	**10**
Secured, PFOs	**2**
Standby	**8**
TOTAL	**120**



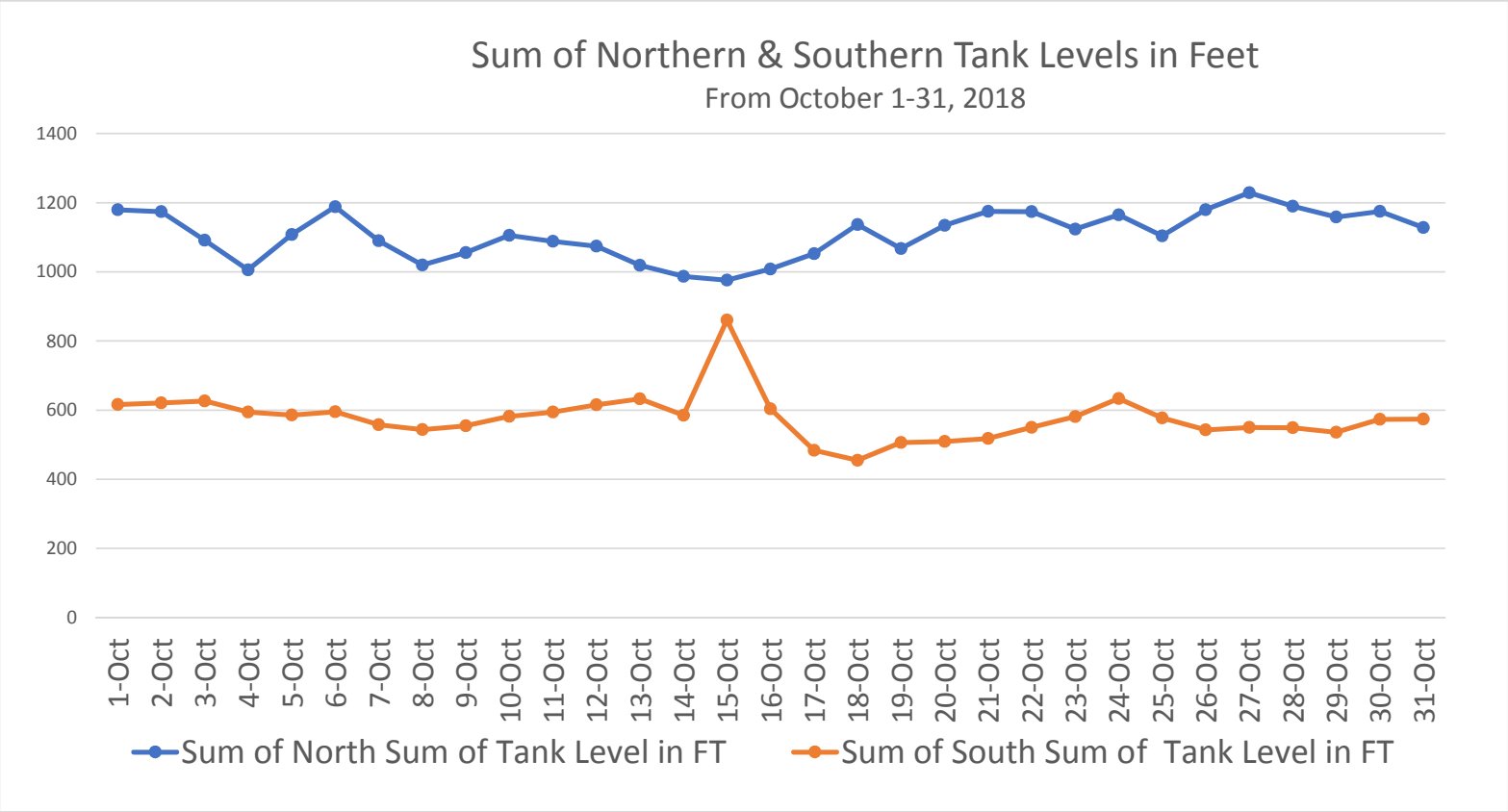
Tumon Maui Well Production vs. Demand for October 2018



Distribution

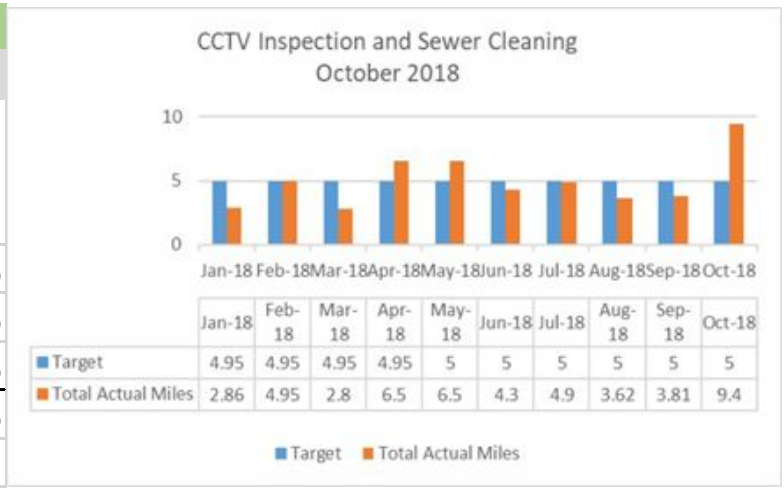
Monthly Distribution Summary - October 2018					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	11	21	19	90.5%
	Central	7	15	15	100.0%
	Southern	7	15	15	100.0%
		25	51	49	96.1%



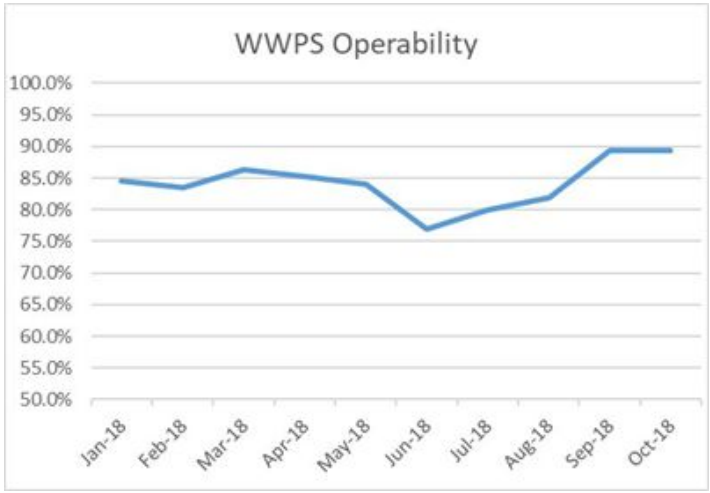

Sum of Northern & Southern Tank Levels in Feet
From October 1-31, 2018
1400
1200
1000
800
600
400
200
0
1-Oct
2-Oct
3-Oct
4-Oct
5-Oct
6-Oct
7-Oct
8-Oct
9-Oct
10-Oct
11-Oct
12-Oct
13-Oct
14-Oct
15-Oct
16-Oct
17-Oct
18-Oct
19-Oct
20-Oct
21-Oct
22-Oct
23-Oct
24-Oct
25-Oct
26-Oct
27-Oct
28-Oct
29-Oct
30-Oct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

Wastewater Collections

Monthly Collections Summary - October 2018					
Wastewater Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	22	52	48	92.3%
	Central	29	65	55	84.6%
	Southern	25	52	48	92.3%
		76	169	151	89.3%

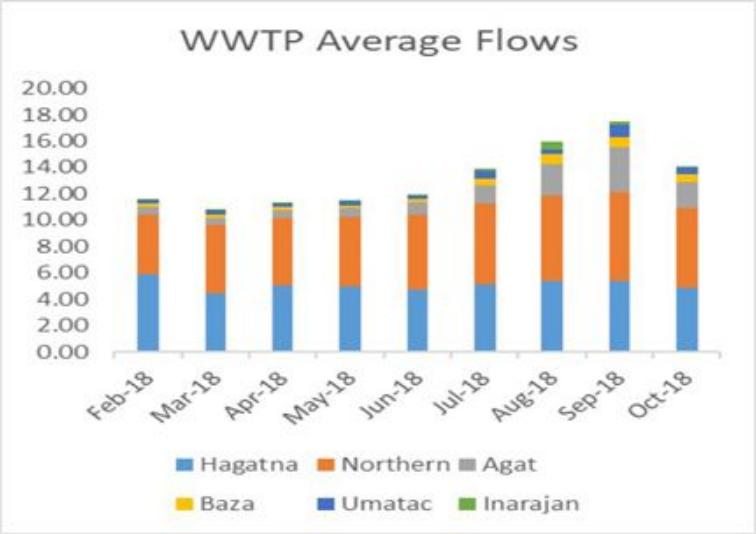


	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18
Target	4.95	4.95	4.95	4.95	5	5	5	5	5	5
Total Actual Miles	2.86	4.95	2.8	6.5	6.5	4.3	4.9	3.62	3.81	9.4

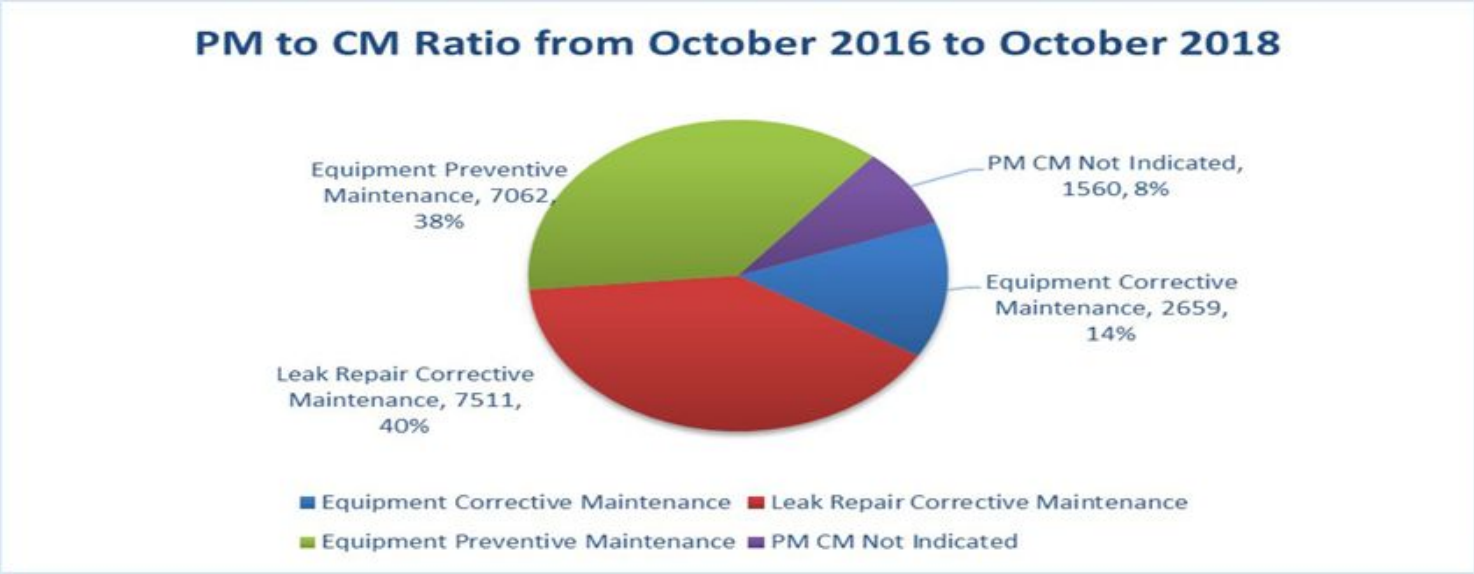


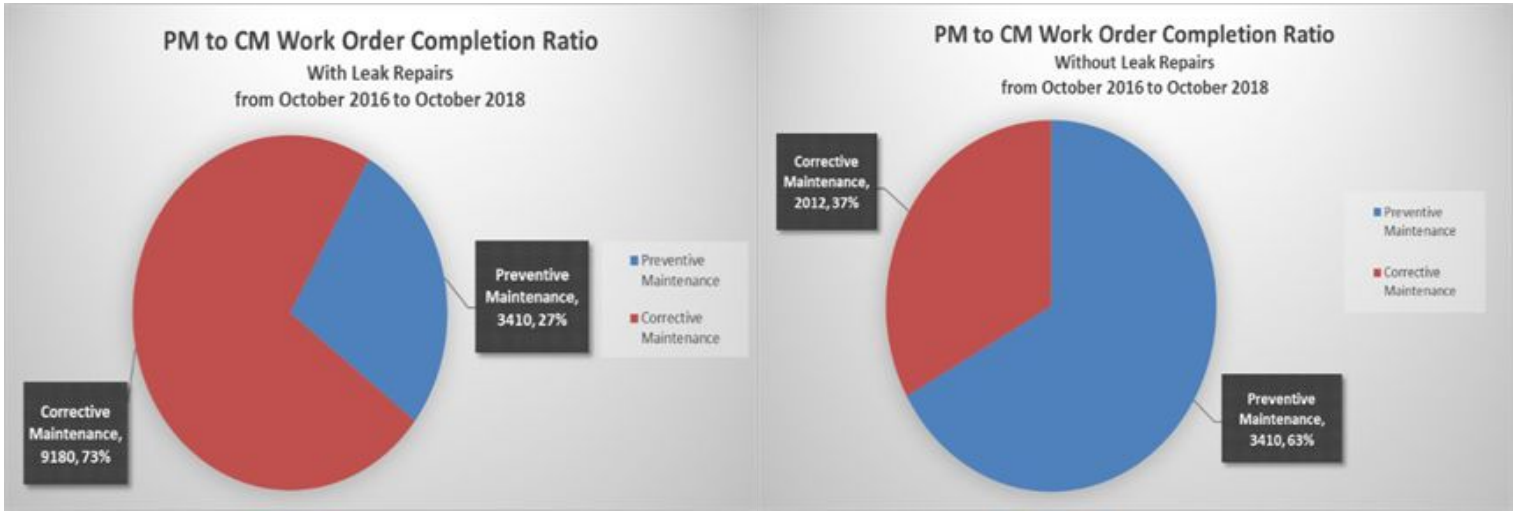
Wastewater Treatment

Monthly Wastewater Treatment Summary - October 2018				
WW Treatment Plants - Flows				
	Facility	**Avg. Daily Flows**	**Sludge (lbs)**	**Sludge Disp. ($)**
	Hagatna	4.90	278,580	$ 25,072
	Northern	6	607,880	$ 54,709
	Agat	1.96		
	Baza	0.60		
	Umatac	0.52		
	Inarajan	0.12		
		14.10	886,460	$ 79,781



Asset Management for October 2018





Operational Issues

Production & Distribution

- Leak repair/detection
  - Crews maintaining performance - As of October 15th, there were 17 pending repairs
  - Contract pending for remote leak detection services – services to begin in January 2019
  - GWA's Line and Leak Repair Unit has been nominated for and received MAGPRO award for Cost Savings/Innovative Idea of the Year (Large Department/Agency)
- WSCC –
  - SCADA preparation on-going
- Production
  - Pump and motor inventories getting low; PUC approval of FY2019 purchases pending (Nov 29th)
  - GWA crane is down again, pending repair; Well repair delayed because of crane rental PO issuance

Wastewater Collection & Treatment

- CCTV & Collections System:
  - SSES and CCTV-based repairs to collection lines and SMHs are still on-going
  - CCTV equipment and Combination trucks need service – pending POs
- Pump stations
  - Working to address pump operability issues
  - Critical spares and replacements procurement – awarded/protested; initial orders pending
- Treatment Plants
  - Hagatna WWTP
    - Two Centrifuges are operating, but still need repair to controls on one unit;
    - Clarifier – two operational, one being repaired
    - Digester aerator – 2 of 3 operational, gear-box issue
  - Northern WWTP
    - No. 2 centrifuge gear-box replaced; operation pending bins
  - Agat-Santa Rita WWTP
    - Contractor is being assessed LDs
    - Equalization tank construction still on-going
    - Paving and sitework to be partially complete in December
  - U-M WWTP
    - Work on-going at the site
    - Significant delays have occurred because of USF&W / EPA permitting issues

- Delay letter has been sent to USEPA

- Baza Gardens
  - Delay letter sent to EPA
  - Work on-going for all 3 phases; Phase III significant work remains for equalization tanks
  - Last leg of gravity line to plant is completed
  - Shooting for operation at end of November/early December

Meters for month of October 2018

COMPLETED FIELD ACTIVITY JAN 2017 THRU OCT 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	Sep-18	Oct-18	TOTAL:	APRIL 2018 COMPLETED FIELD ACTIVITIES (IN PROCESS) TO BE POSTED IN CIS
GWA - Test Meter	30	9	9	371	745	87	393	743	1000	1007	434	378	750	969	1213	1429	84	1299	797	1489	639	1366	15241	418
GWA - Meter Exchange	393	179	220	276	482	353	501	807	1526	1039	452	259	239	1086	2120	121	121	1056	1248	1125	767	744	15114	434
GWA - Verify Zero Report	30	124	114	94	96	402	261	199	550	89	82	169	356	106	117	69	13	2	2	1	5	6	2887	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	6	2	5896	0
TOTAL:	453	312	343	743	1360	878	1351	2237	3733	2337	1095	1418	2203	3283	4505	2082	237	2362	2050	2621	1417	2118	39138	852

# 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	1013	1179	15785	
# 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	253	243	500	2397	$ 1,426,661.21
# 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	25	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	5	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	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	2	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	N/A	N/A		
TOTAL:	30	18	22	22	38	37	31	45	58	50	48	48	20	32	11	10	7	47	31	34	34	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 OCT 30, 2018: 16455

ACTIVE LP MODELS - PURCHASE MO & YEAR	COUNT	
2012	8794	14377 WARRANTY EXPIRED
Jan-13	2106	
Feb-13	728	
Mar-13	633	
May-13	1431	
Aug-13	685	
Feb-14	48	2078 ACTIVE WARRANTY
Mar-14	1	
Apr-14	928	
Jun-14	54	
Aug-14	1047	
TOTAL :	16455	

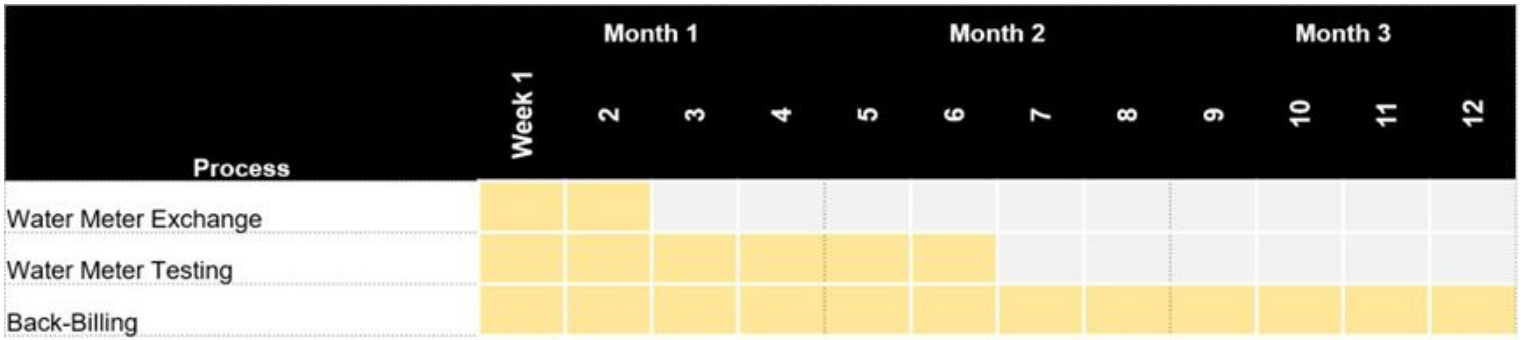
Public Response to Back-Billing

- Customers are surprised by back-billing
- Customers do not understand why they are being back-billing for prior year service dates
- Media reporting on back-billing and championing campaign for GWA to improve or eliminate back-billing

New Steps Added to Back-Billing Process

- Improve communication by:
  1. Send customer a letter indicating meter has been replaced (with in 10 working days)
  2. For failed meters, send customer a letter indicating meter has been tested and account is under review for potential back-billing (with in 31 working days)
  3. If back-bill is required, send customer a letter with easily understandable calculations explaining charges for prior period water consumption (with in 49 working days)
- Researching future opportunities to improve speed and accuracy of process

Current and Proposed Process Timelines



Marbo (Andy-South) Wells – Status

- Reversion documents / Notice of Entry filed by Office of U. S. Attorney in U.S District Court; property has reverted to U.S. Gov't (pending transfer to DoD)
- Informally advised that reservation was included so GWA will retain ownership of wells and no-cost easement being considered for access and use of well sites
- A copy of the reservation will be submitted to Department of Land Management. The property will be on the priority listing for the DOD Joint Land Use Group consideration for transfer to GWA.
- Press release will be issued.

One Guam Update

- Tumon Maui Well:
  - Hatch repair pending
  - VFD for one of ventilation fans being evaluated
- Santa Rosa Tank:
  - NAVFACMAR CO has briefed Andersen MSG (Missions Support Group) commander, and Civil Engineering Squad (CES) commander, and the General regarding the MOU for the Santa Rosa Tank project. Further action by GWA pending finalization of MOU.
- Agat-Santa Rita WWTP
  - Per Tom, may not use the easement for the routing of the new wastewater line from Hyundai.
  - DoD preparing documents for "in-kind" consideration as payment for the Agat easement. It will require GWA to do simple mowing and the removal of one large tree at the lot near the Tumon Maui Well.
- OEA Projects
  - NGLA Observation Wells - Discussion with DoD's Legal needed to nail down ownership and maintenance issues
  - Interceptor – working out coordination issues with regard to by-pass routing, GPA renewable project, and housing demo
  - Observation Wells
    - Still pending approval from DOD for the on Andersen sites new wells.

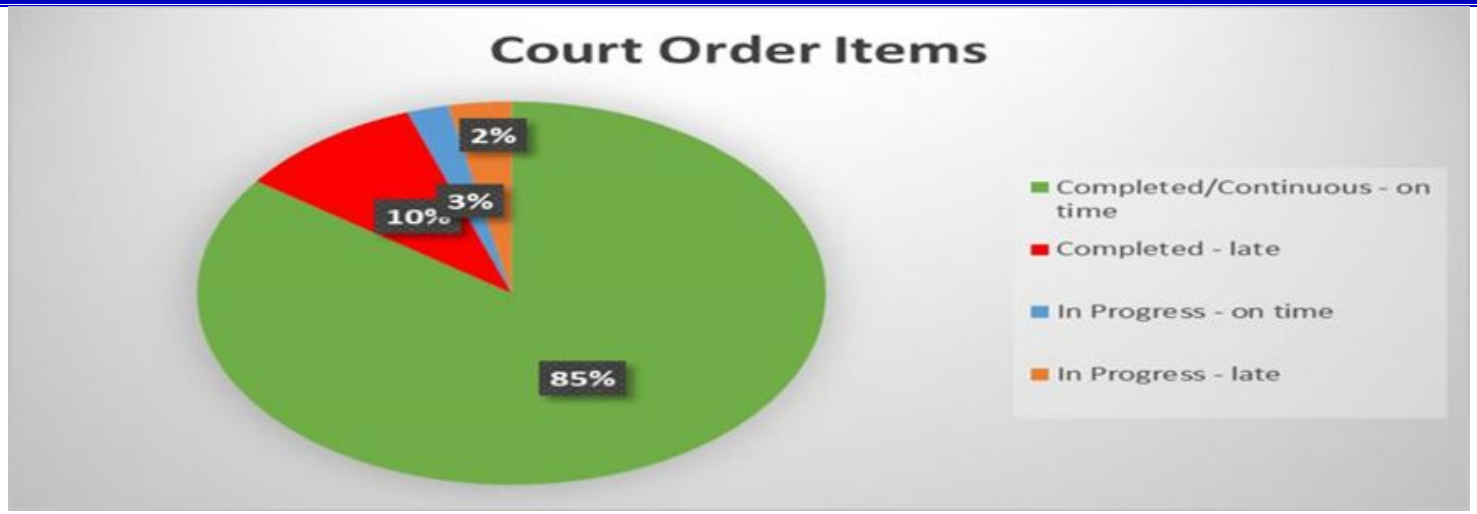
        - Ownership of the wells post-construction was discussed at GWIST Face to Face Meeting. OEA representative indicated concurrence with the proposal to include the transfer of improvements (new/rehabbed wells) to DoD upon completion of construction as a part of the Temporary Construction Easement documentation.
    - Sewer Interceptor
        - Revised Site Approval Request for the South Finegayan portion of the project are pending.

- Training and Collaboration
    - AWWA HIWPS training for operators – waiting for DoD interest
    - CIPP training scheduled for this month Oct 22-26.

- 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.
    - Cabras Island Water Lines – further action pending GWA review
    - Navy Raw Water Lines - GWA asked about tapping into the Navy raw water lines; Navy has reviewed and is proposing Bulk Water Sales
        - Sales of “raw” water will reduce the need for the treatment plant but too far to make it cost efficient.
        - DOD will continue to sell GWA treated water, but work on a rate with distribution costs removed.
- Route 5 Sewer Line Project
    - Maria Lewis verified Navy was not yet billing GWA for sewer, but the billing problem has been corrected and GWA should start receiving bills this month.
    - GWA contractor working out how to tie in Southern High.
- Property Transfers
    - Transfer of Navy laterals at Murray Road to GWA
        - The lines were placed on the priority listing for the DoD Joint Land Use Group’s (JLUG) consideration for transfer.
    - Transfer of BPM-1 monitoring well
        - the property will be prioritized for transfer to GovGuam/GWA.

Court Order

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	**93**	**79**	**3**	**9**	**2**	**96.8%**



Status Information

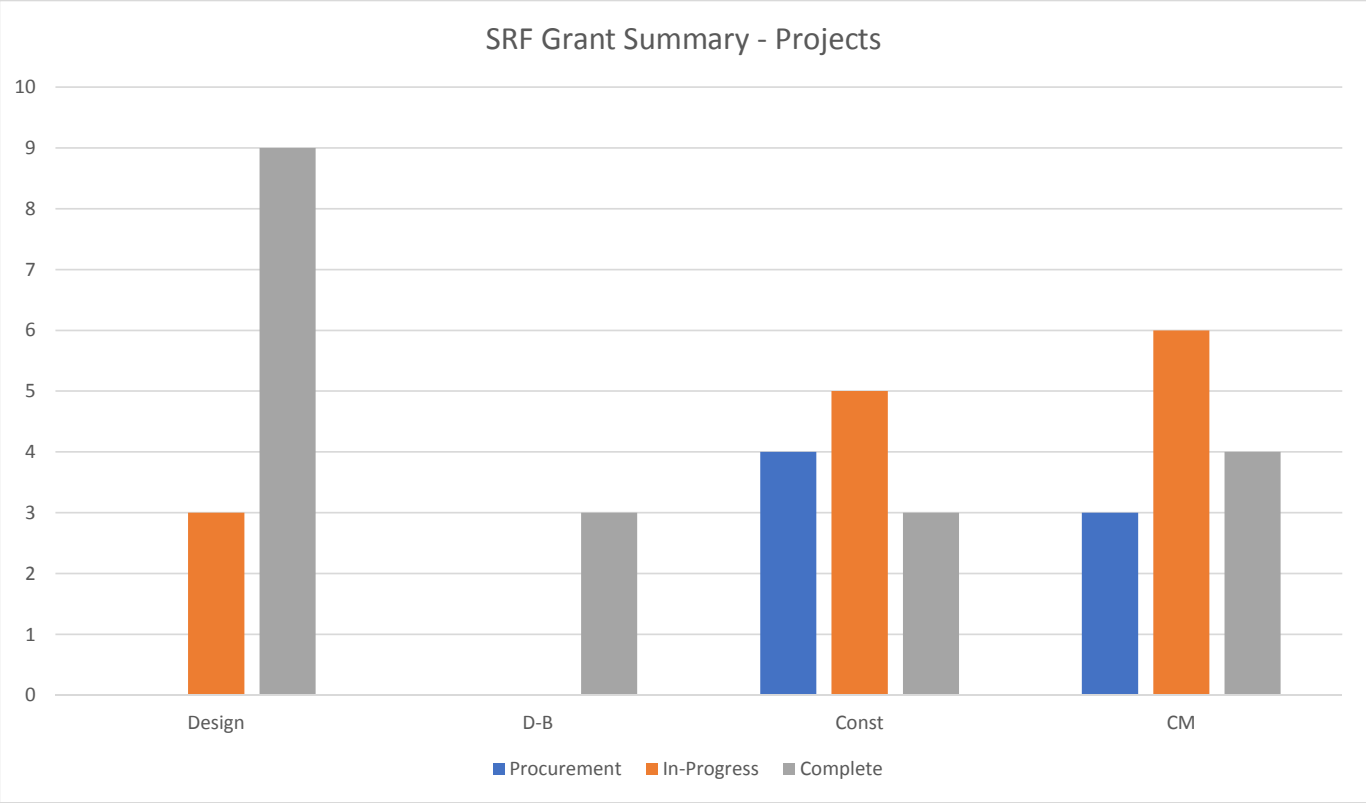
- 2 items delayed
  - Meters - completed
  - Baza Gardens Sewer Line – December 2018
  - Umatac-Merizo Wastewater Treatment Plant – July 2019
- Final Date to complete all Court Order items is December 31, 2020.
- Overflow or Bypass events reported to USEPA:
  - 11/05/2018, Yigo Pump Station sewer overflow – broken compressor hose
  - Umatac WWTP, Bypass 10/18/2018 to 11/06/2018 (ended Nov. 6, 2018)

CIP Summary

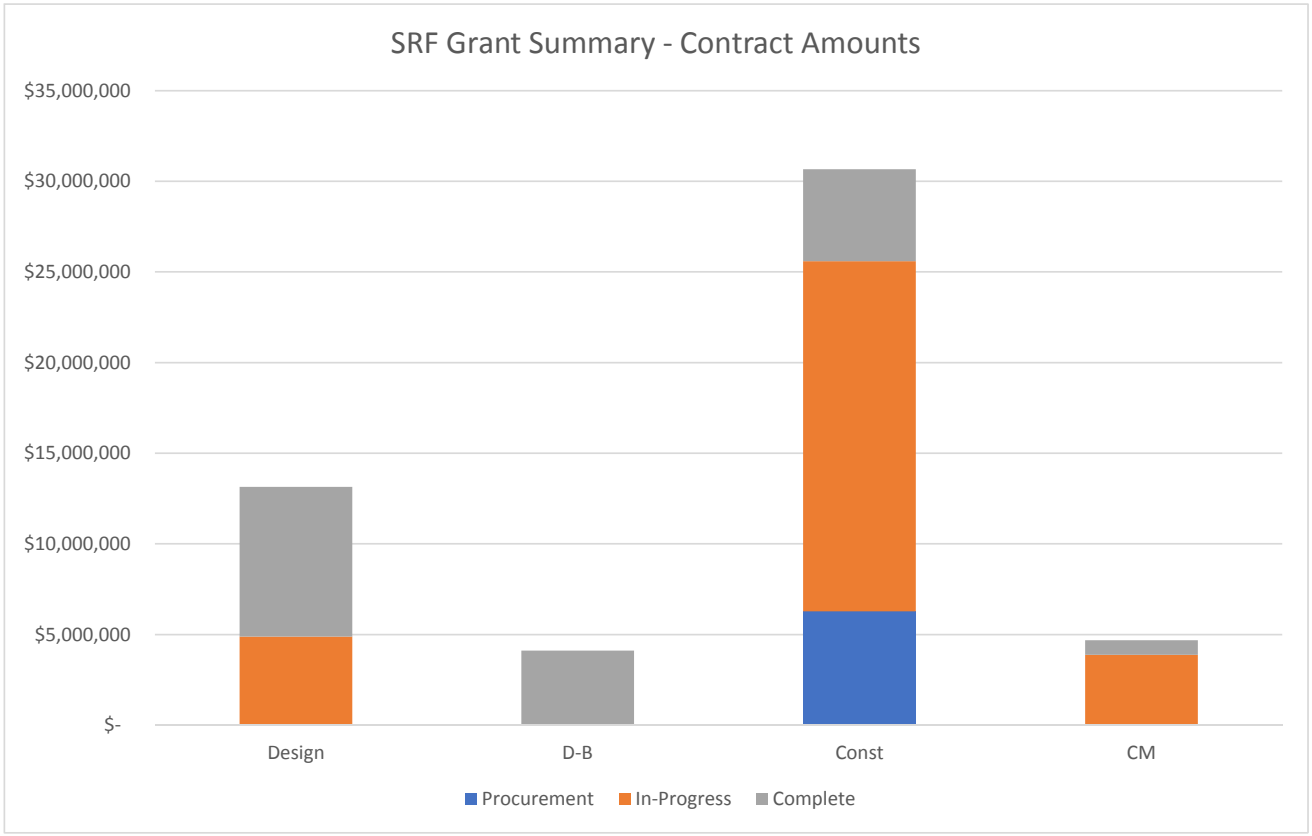
Pending reconciliation between Engineering and Finance

SRF Grant Summary

SRF Grant Summary - Projects (Sep 2018)					
	Procurement	**In-Progress**	**Complete**	**Totals**	**%**
Design	0	3	9	12	30%
D-B	0	0	3	3	8%
Const	4	5	3	12	30%
CM	3	6	4	13	33%
Totals	7	14	19	40	
%	18%	35%	48%		



SRF Grant Summary - Contract Amounts (Sep 2018)					
	Procurement	In-Progress	Complete	Totals	%
Design	$ -	$ 4,892,286	8,249,328	$ 13,141,614	25%
D-B	$ -	$ -	$ 4,108,217	$ 4,108,217	8%
Const	6,275,782	$ 19,309,043	$ 5,086,130	$ 30,670,955	58%
CM	$ -	$ 3,877,036	$ 802,243	$ 4,679,279	9%
Totals	$ 6,275,782	$ 28,078,365	$ 18,245,918	$ 52,600,065	
%	12%	53%	35%		



OEA Grant Summary

- NDWWTP Upgrades
  - 90% design submittal due December 10th.
  - Sitework bid package issued – Award pending
  - Vertical bid package planned for issuance Mar 2019

- Outfall Diffuser:
  - Bid received and currently being evaluated

- Sewer Line Interceptor Design-Build
  - 60% Design submittal submitted; pending GWA review
  - 90% Design submittal expected December 20th
  - 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

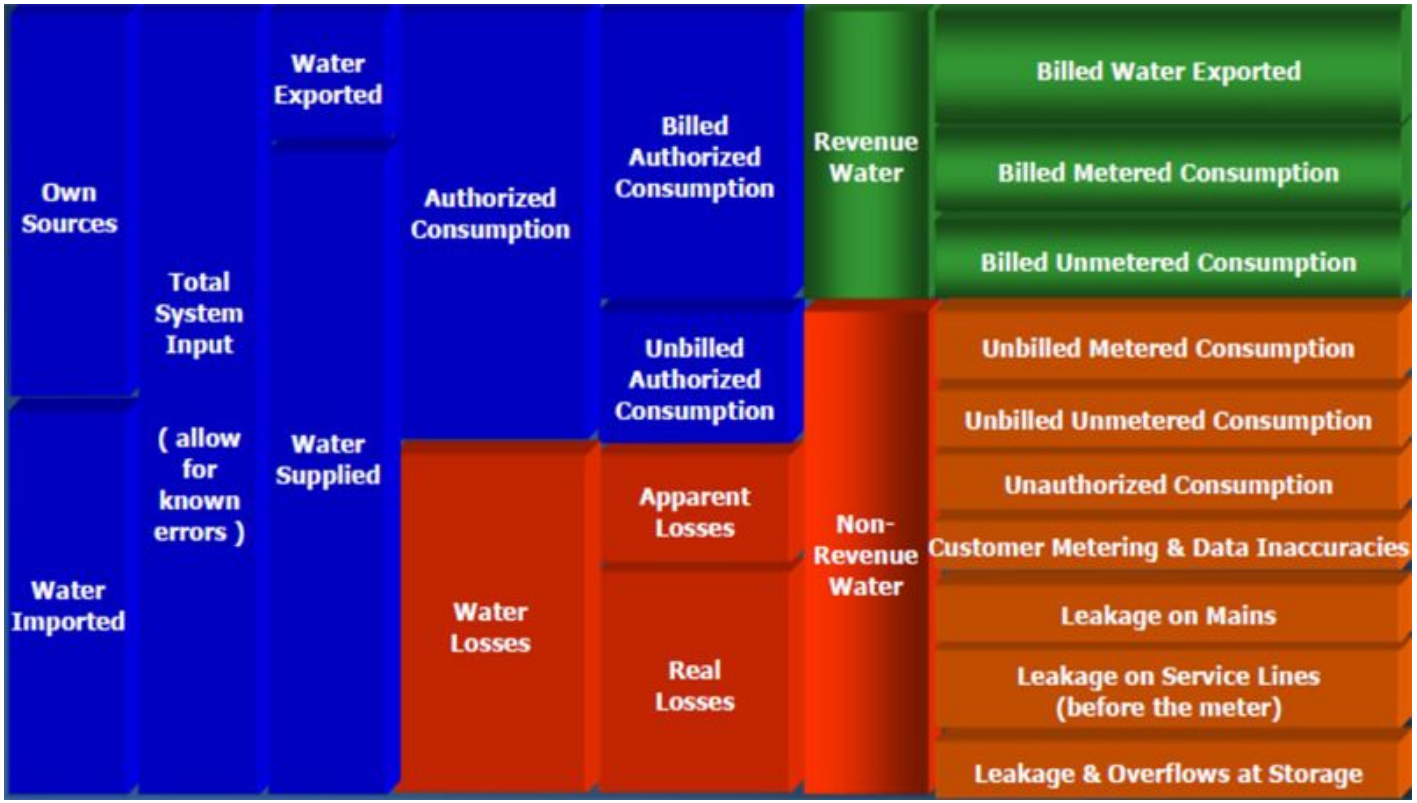
Action Item	Date (Target)	Date (Actual)	Status	Remarks
Project Funds Available	July-16	AUG-30-16	Completed	
Land Acquisition	Jan-17	Jan-17 (Compensation Pending)	Completed	Survey complete, appraisals complete – Deed circulated for signatures
Procure PM/CM Firm	Jan-17	Jan-17 (NTP Issued Feb 10th)	Completed	
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	Phased construction; Phase 1 expected award before Dec '18; Phase 2 award in 1st quarter '19
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

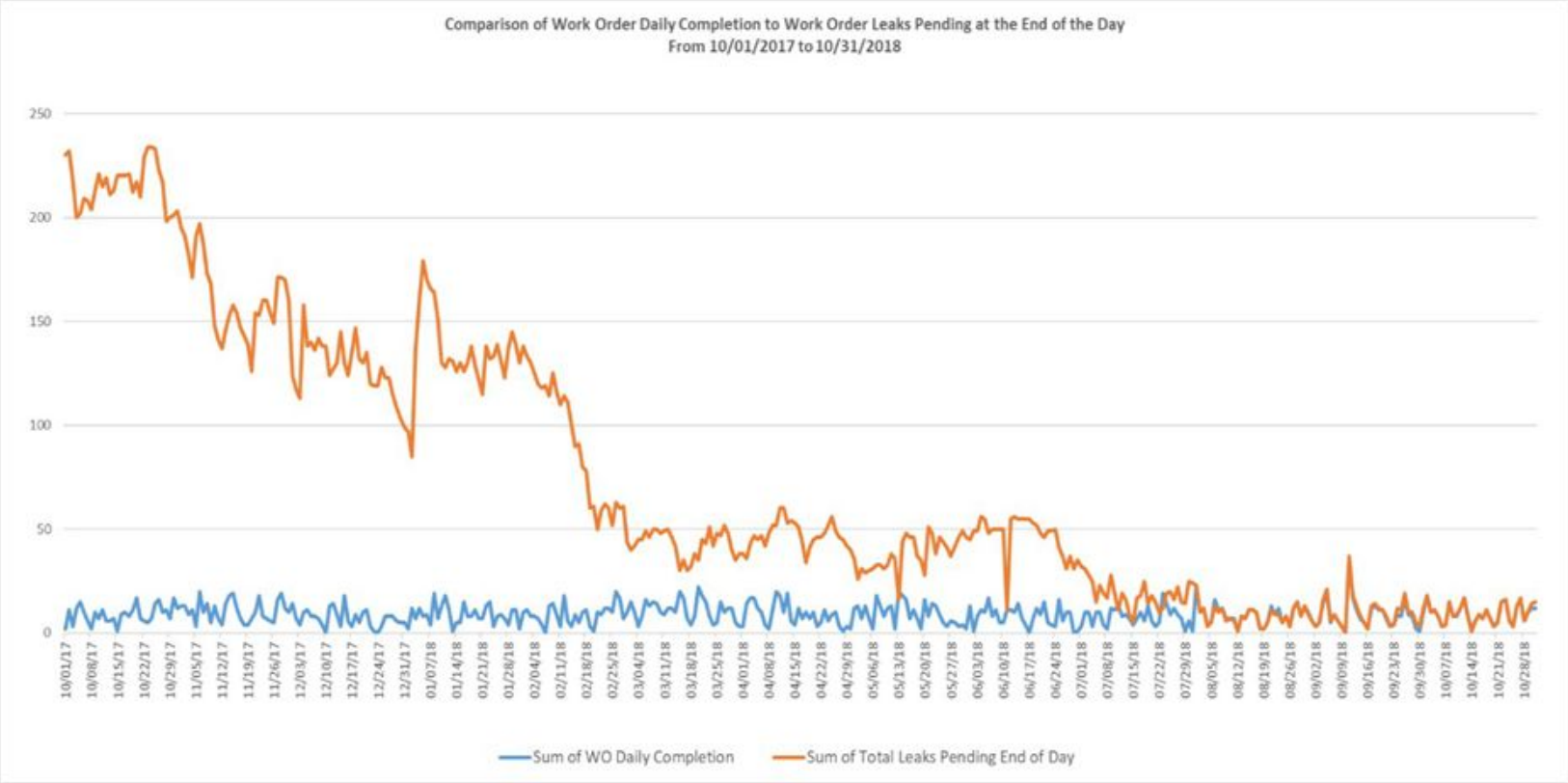
GWA Facility	Location	Gov. or Private Property	Land Acquisition Status
Tanks	Ugum	Private	Acceptance of Counter offer Letter for L4 B4 T3521 drafted and sent to GM for review and approval 10/09/18. Property owner counteroffer sent up to GM for approval for L3 B4 T3521 11/05/18.
	Astumbo	Gov't. - CLTC	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	Land acquisition completed and filed under GWA ownership 09/17/18
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. Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2nd follow up sent on 09/12/18.
	Y-8	Gov't. - CLTC	Property ownership under Guam Waterworks Authority per Grant Deed No. 928090
Booster Pump Station	Agfayan	Private	Authorization Form to perform appraisal and investigative services for L28, B19, T3734, Inarajan signed by CLTC 10/29/2018
Sewer Pump Stations	2nd Adjacent Property to Southern Link	Private	Land Purchase and Sale Agreement forwarded to property owner for signature 11/07/18
Asan Springs	Asan	Federal	License Agreement for Asan Springs facility that fall on Dept. of Park Services property currently under DOI review

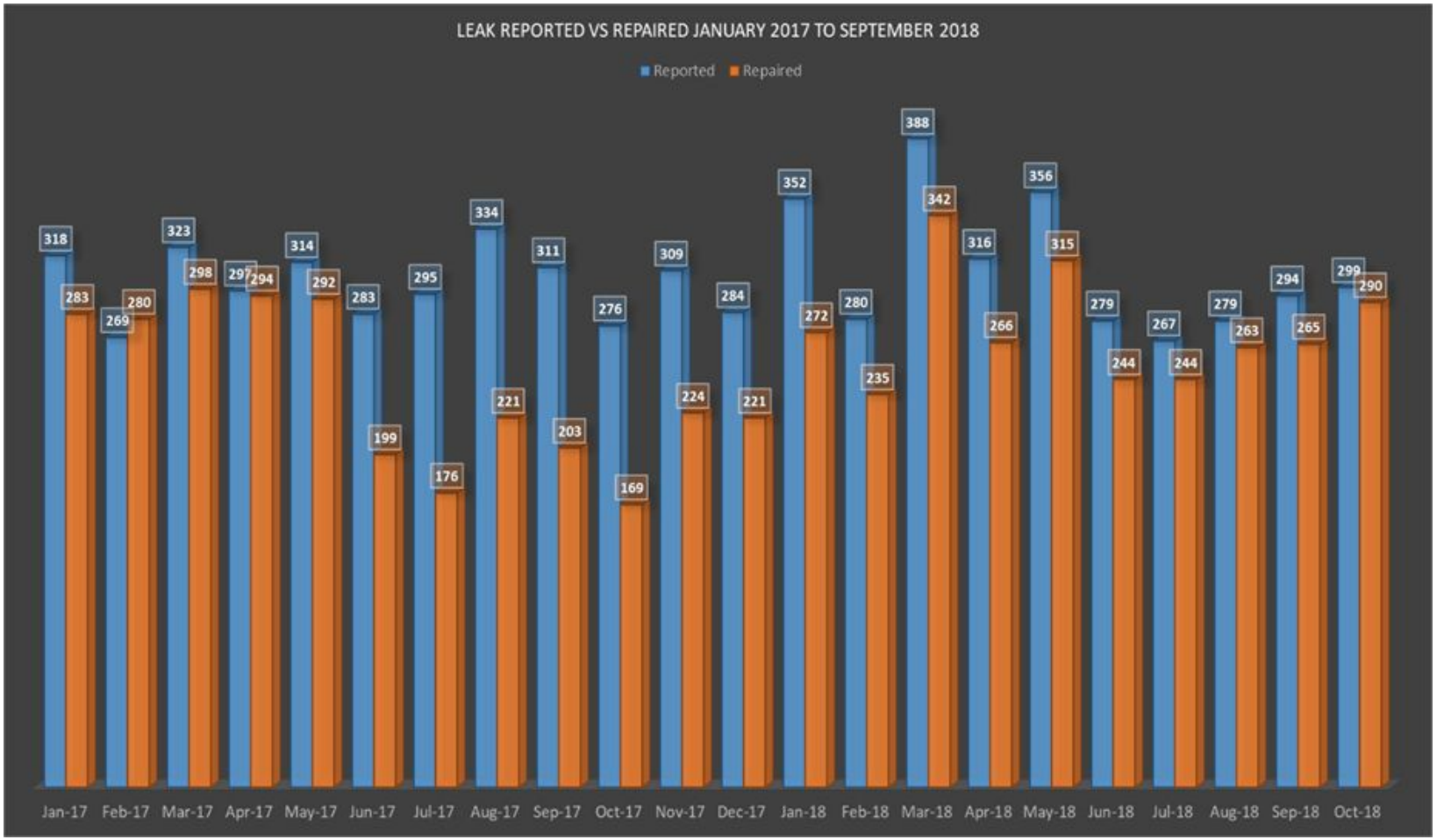
NRW – Update

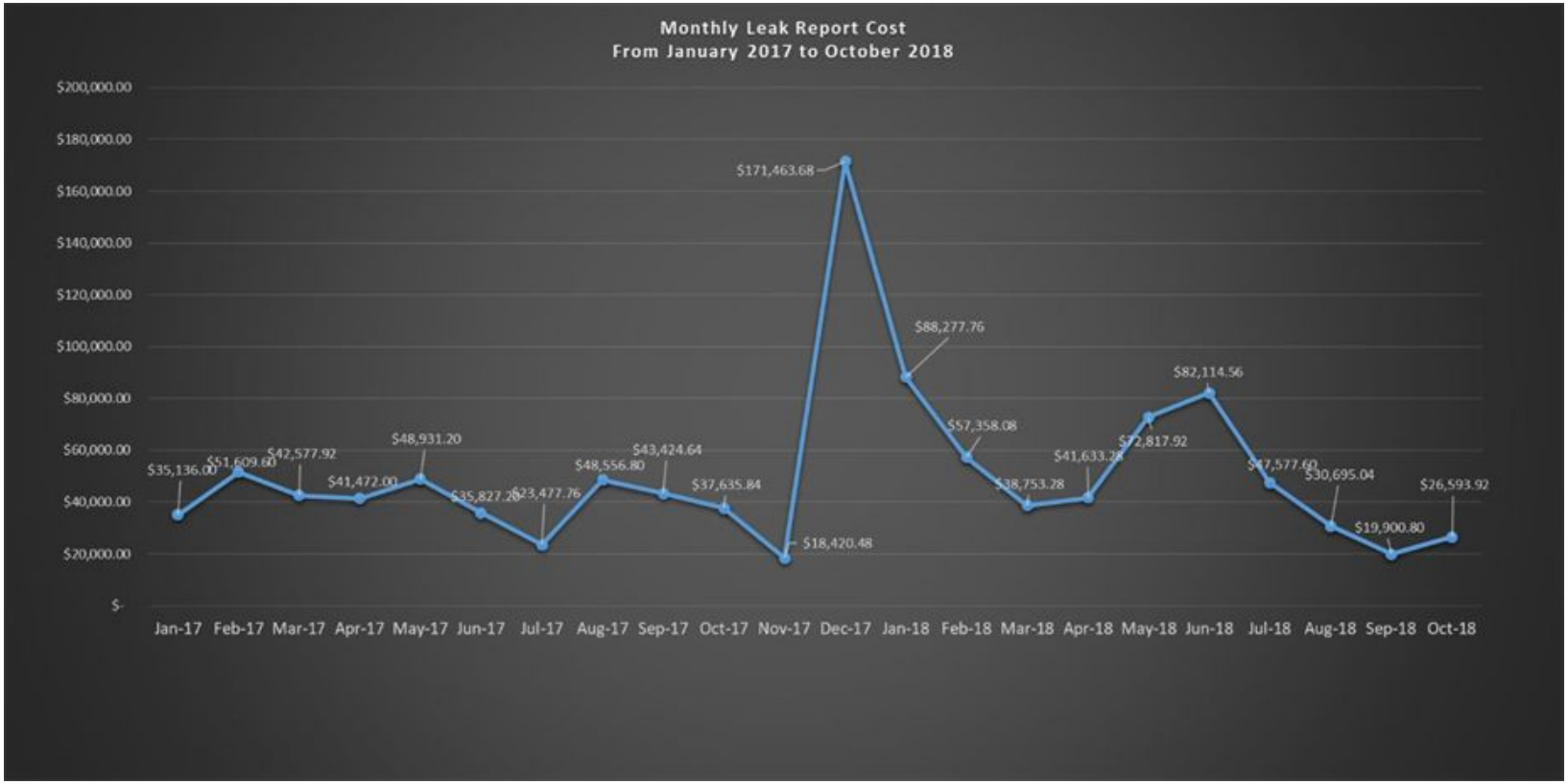
- Water Loss Control Program activities are on-going
    - Latest numbers show water losses (real losses) at 49.4%.
    - Production meter replacement program is under design for 65 well sites. Portable flow meter is being procured to calibrate existing meters.
    - District Metering Areas are currently 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; Procurement has been initiated.



Leak Repair Summary for October 2018




LEAK REPORTED VS REPAIRED JANUARY 2017 TO SEPTEMBER 2018
Reported
Repaired
318
283
269
280
323
298
297
294
314
292
283
199
295
176
334
221
311
203
276
169
309
224
284
221
352
272
280
235
388
342
316
266
356
315
279
244
267
244
279
263
294
265
299
290
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
Sep-18
Oct-18



Assumptions:

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

2011 Court Order Performance Report Card / Dashboard as of 10/30/2018

GUAM WATERWORKS AUTHORITY

Court Order Performance Report Card

	Items	On-time Items Completed/Continuous	Items Delayed	Completed Late	Items on Schedule	Performance %
Court order total	93	79	3	9	2	96.8%

Legend in detail section below.

Fill Color	Meaning
Lime green	Done/Completed
Yellow	On Schedule
Blue	Behind Schedule
Violet	Completed Behind Schedule
Yellow Green	Ongoing and Continuous Counted under Completed

2011 Court Order Performance Report Card / Dashboard as of 10/30/2018

Name	SO #	No	Project	GWA SO Timeline	Due to EPA	Status
Northern District WWTP Primary Treatment Upgrades.	2	1	Interim Primary Treatment Improvements Complete	09/30/2012	@EPA	**Done** Construction completed 12/13/2012
	3(a)	2	Interim Effluent to meet Table 1	09/30/2012 monitoring started	@EPA	**Done** Table 1 compliance beginning January 9, 2013.
	3(a)(1)	3	PE Review (Application for 7.5 MGD pending)	3 months after compliance with 3(a)	@EPA	**Done** 3(a)(1) Application to increase to 7.5 MGD **Approved 08/13/2017**
	3(a)(2)	4	(Application for 9 MGD)	3 months after compliance with 3(a)(1)	N/A	**Not considered necessary** because of OEA Upgrade of NDWWTP
	3(c)	5	Effluent monitoring (calendar-year quarter)	**Completed**	@EPA	**Done. Full year completed 01/08/2012**
	4(a)	6	Sludge & Biosolids Management Plan	12/31/2011	@EPA	**Done.** Biosolids to Landfill EPA Approval 08/17/2014
	4(a)	7	Adequate stabilization and dewatering	9/30/2012	@EPA	**Done.** By Design-Build contract.
	4(b)	8	Biosolids Management, Quarterly Report	Quarterly Report	@EPA	**Ongoing** Routine Monitoring Report, **Repeats Quarterly**
	4(c)	9	Biosolids Management, repair & replace facilities	09/30/2012	@EPA	**Done** Construction Complete 12/13/2012. Biosolids to Landfill
	4(d)	10	Biosolids Management, implement plan	9/30/2012	@EPA	**Done** - Biosolids to Landfill
Agaña WWTP Interim Measures.	5	11	Primary Treatment Plant Upgrades	06/30/2013	@EPA	**Done.** CEPT is operational and routine.
	5(a)	12	Scope and schedule	09/30/2011	@EPA	**Done.** CEPT is operational and routine.
	5(b)	13	Septage Handling Complete	06/30/2013	@EPA	**Done.** Septage Receiving at the NDWWTP (location option) reported 06/26/2013.
	5(b) 1	14	Septage handling design contract signed	12/31/2011	@EPA	**Done.** Septage Receiving at the NDWWTP (location option) reported 06/26/2013.
	5(b) 2	15	Septage handling construction notice to proceed	06/30/2012	@EPA	**Done.** Septage Receiving at the NDWWTP (location option) reported 06/26/2013.
	5(c)	16	Grit and FOG Complete	06/30/2013	@EPA	**Done** Phase III CEPT is in operations.)
	5(c) 1	17	Grit and FOG design contract signed	12/31/2011	@EPA	**Done** Grit and FOG reported 06/06/2013
	5(c) 2	18	Grit and FOG construction notice to proceed	06/30/2012	@EPA	**Done** Submitted 11/17/2011
	5(d)	19	Repair Solids handling	11/17/2011	@EPA	**Done** Submitted 11/17/2011
	5(e)	20	O & M Plan	05/31/2013	@EPA	**Done** O & M Plan reported 05/31/2012
	5(f)	21	Effluent monitoring (calendar-year quarter)	**Completed**	@EPA	**COMPLETED Full year as of 01/08/2012**
	6	22	Prevent Effluent Back Surge	06/30/2013	@EPA	**Done** Old outfall decommissioned (plugged) 06/25/2013
	6	23	Effluent Back Surge Plan	12/30/2011	@EPA	**Done** Old outfall decommissioned (plugged) 06/25/2013
I&I SSES	7	24	Collection System SSES and I/I evaluation	**Done.**	@EPA	**Done.**
SSES Work Plan	8	25	Work Plan	180 days	@EPA	**Done** Reported 08/13/2012
	8(a)	26	Flow and rainfall data	N/A	@EPA	**Done** Reported 04/25/2013
	8(b)	27	I/I Southern	540 days	@EPA	**Done** Reported 04/25/2013
	8(c)	28	I/I Central	900 days	@EPA	**Done** Reported 04/28/2014
	8(d)	29	SSES Southern	540 days	@EPA	**Done** Reported 04/30/2013 – update 04/29.2016
	8(e)	30	SSES Central	900 days 09/15/2015 EPA Disap. Ltr.	@EPA	**Done Late** – Completed June 2, 2017
	8(e) 2	31	SSES Central Report	09/15/2015 EPA Disapproval Letter	@EPA	**Done Late** – Completed June 2, 2017
Agat / Santa Rita,	9(a)	32	By Pass Report	60 days	@EPA	**Done** Reported 01/04/2012
	9(b)	33	Flow Meter	180 days	@EPA	**Done** Reported 07/26/2012
	9(c)1,2,3	34	Report evaluating near term measures	180 days response sent 09/29/2014	@EPA	**Done** Reported 05/07/2012 GWA response 09/292014.
	9(d)	35	Implement near term measures d - Disinfection	03/23/2016	@EPA	**Done Late EPA specifications of 9(c), 9(d) and 9(f) on 09/24/2015.**
	9(e)	36	Implement near term measures e – sludge mgmt.	03/23/2016	@EPA	**Done** Reported 03/23/2016
	9(f)	37	Implement near term measures f – 75% Bypass Red.	03/23/2016	@EPA	**Done** Reported 03/23/2016
	10	38	System Evaluation	12/31/2013 response sent 09/29/2014	@EPA	**Done** Reported 12/28/2013 GWA response 09/29/2014.- update 04/29/2016
	11	39	System Upgrades	03/14/2017 Plant became operational.	@EPA	**Done Late** New Agat WWTP on line 03/14/2017
	11(a)	40	System Upgrades design	06/30/2014-NTP 10/13/2014	@EPA	**Done Late** CCU approval 08/26/2014. NTP was issued on 10/13/2014
	11(b)	41	System Upgrades notice to proceed	06/30/2015-NTP 10/02/2015	@EPA	**Done Late** NTP Ph.1 issued 10/02/2015 - NTP Ph.2 due 01/04/2016
Baza Gardens	12(a)	42	Interim Measures Evaluation (Independent PE)	180 days	@EPA	**Done** Reported 05/07/2012, PMO task
	12(b)	43	Interim Measures Complete	540 days	@EPA	**Done** Reported 05/01/2013 PMO task
	12(c)	44	Evaluation Bio Solids Report	180 days	@EPA	**Done**-EPA Approval 08/28/2014
	12(d)	45	Complete Bio Solids	360 days	@EPA	**Done** Reported 03/21/2013
	13	46	System Evaluation	04/30/2014	@EPA	**Done** Reported 04/30/2014 GWA response 10/02/2014
	14	47	System Upgrades	04/31/2018	@EPA	**Done** Critical path need to complete I&I/SSES
	14(a)	48	System Upgrades, Design Starts	10/31/2015 NTP DCA 02/05/2016	@EPA	**Done Late** Linked to new Agat WWTP NTP DCA 02/05/2016
	14(b)	49	System Upgrades Construction (started on time)	10/31/2016	@EPA	**LATE:** US Fish and Wildlife Redesign for permit approvals have caused delays which will make completion like until the end of September. **New October 2018 problem with fiber-optic cable allignment conflicts – Finish now expected 12/31/2018.**

2011 Court Order Performance Report Card / Dashboard as of 10/30/2018

Name	SO #	No	Project	GWA SO Timeline	Due to EPA	Status
Umatac-Merizo	15	50	Complete Evaluation	12/31/2013	@EPA	**Done** CO 15 **Done** Reported 12/31/2013 -- Critical path, completed I&I/SSES
	16	51	System Upgrades	12/31/2018	@EPA	Delayed by US Fish and Wildlife issues – **completion expected July 2019**
	16(a)	52	System Upgrades, Design Starts	06/30/2016	@EPA	**Done** Design Build contract executed 06/29/2017
	16(b)	53	System Upgrades, Notice to Proceed	06/30/2017	@EPA	**Done** NTP Issued 06/30/2017
Sewer Cleaning	17	54	Sewer Cleaning (in annual and quarterly reports)	2017-2022 Goal set: Complete Every 5 years	@EPA	**Done** 2017-2022 Goal set. - Entire System Every5 years **– Second cycle has begun**
Hot Spot Plan	18	55	Hot Spot Plan	EPA Revision letter o9/08/2015	@EPA	**Done** Last Revision submitted 10/23/2015 GWA WW Ops
CCTV	19	56	CCTV (in annual and quarterly reports)	Done- 2016	@EPA	**Done** 2016
Sewer Hook-Up	20	57	Sewer Hook-Up Revolving Loan Support	In Operation	@EPA	**Done –** available on GWA web site or at GWA Customer Service
GW Disinfection	21	58	Groundwater Chlorination	540 days	@EPA	**Done** Reported 04/29/2013
Chlorine Residual Monitors	22	59	Plan	180 days	@EPA	**Done** Reported 09/94/2012
	22(a)	60	High Risk Wells	540 days	@EPA	**Done** Reported 05/02/2013
	22(b)	61	Moderate Risk Wells	2 years	@EPA	**Done** Reported 07/31/2013
	22(c)	62	All Other Wells	Completed 07/31/2017	@EPA	**Done Late – Completed 07/31/2017**
Water Metering	23(a)	63	Plan & schedule	180 days	@EPA	**Done Late** Reported 05/08/2012
	23(a)	64	All connections are metered and mapped	2 years	@EPA	**LATE:** 10/31/2016 Substantially complete-- **2** Sensus, **0** Metron left
	23(b)	65	Plan repair & maintain	180 days	@EPA	**Done** GWA Test facility operational 06/28/2013
Ugum Surface Water Treatment Plant	24	66	Construction complete	One year	@EPA	**Done** Reported 11/09/2012
	24	67	PE Inspection	60 days before start-up	@EPA	**Done** EPA Approval 08/26/2014
	25	68	PE Performance Operation Assessment	60 days before start-up	@EPA	**Done** EPA Approval 08/26/2014
	26	69	O&M Plan and Procedures	90 days before start-up	@EPA	**Done** Reported 08/10/2012 EPA Approval 08/17/2014
	27	70	Plant compliance	365 days	@EPA	**Done** Reported 02/07/2013
Sinajana Water Transmission Line	28(a)	71	Existing Construction Complete	180 days	@EPA	**Done** Reported 12/23/2011
	28(b)	72	Hydraulic Evaluation	180 days	@EPA	**Done** EPA No Further Comment 08/26/2014
	28(c)	73	Construction Complete (2 tanks)	540 days from 11/21/2013	@EPA	**Done Late GEPA Delays** Tank Constr. Completed August 2015: **In Service July 2016.**
	28(d) 1	74	Monitoring Plan	90 days prior	@EPA	**Done** Reported 09/07/2012
	28(d) 1	75	Implement- Monitoring Plan	For one year after start up	@EPA	**COMPLETED** GWA Compliance - **Start 09/01/2015 – end 08/31/2016**
	28(d) 2	76	Monitoring Plan	180 days prior	@EPA	**Done** EPA Approval 08/26/2014
	28(e)	77	Implement- Monitoring Plan	For one year after start up	@EPA	**COMPLETED - Start 09/01/2015 – end 08/31/2016**
Storage Tank/Reservoir Rehabilitation and Replacement Program.	29(a) 1	78	Plan hydraulic analysis	90 days	@EPA	**Done** Reported 11/09/2012
	29(a) 2	79	Hydraulic analysis	540 days	@EPA	**Done** EPA No Further Comment 08/26/2014
	29(b) 1	80	Plan minimize service interruptions	90 days after approval	@EPA	**Done** EPA approval 08/26/2014
	29(b) 2	81	Tank inspection schedule	540 days	@EPA	**Done** EPA approval 08/26/2014
	29(b) 3	82	Complete Barrigada (1 @ 2 MG tank)	540 days	@EPA	**Done**
	29(b) 4	83	Assess additional 7 tanks	5 years (11/10/2016)	@EPA	**Done** DCA contract task
	29(b) 5	84	RRRR 7 additional tanks	5 years (11/10/2016)	@EPA	**Done** PMO executed procurement
	29(b) 6 i	85	RRRR 10 additional tanks	7 years (11/10/3018)	@EPA	**Ongoing** - Completed the hydraulic analysis
	29(b) 6 ii	86	RRRR remaining	12/31/2020	@EPA	**Ongoing**
	29(c)	87	In Quarterly / Annual Report	Quarterly / Annual Report	@EPA	**Ongoing** GWA Compliance **Repeats Quarterly**
Section III REPORTING REQUIREMENTS	31(a)(1)	88	Quarterly Report	Jan., April, July, Sept. Continuous	@EPA	**Ongoing** Due by the 30th of the specified months
	31(a)(2)	89	Reports on Non Compliance	Within 30 days from determination of delay	@EPA	**Ongoing** As determined by GWA
	31(b)	90	SSO and Bypass Report	Jan., April, July, Sept. Continuous	@EPA	**Ongoing** Due by the 30th of the specified months
	31(c)	91	Annual Report	January each year	@EPA	**Ongoing** Included with 31(a) each Year
Section IV NOTICES	35	92	CO contacts		@EPA	**Ongoing** GWA Compliance report 06/29/2016
	36	93	Formal notices of change in CO contacts	Whenever specified staffing changes	@EPA	**Ongoing** GWA Compliance report 06/29/2016

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Corrective Action Plan (CAP) (Approved 10/21/2014) Quarterly/Annual Update Report

Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

Prepared By: Paul Kemp, Vangie Lujan and John Riegel **Update**: October 25, 2018

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items:

Preface to the Corrective Action Plan

Reporting

Formal updates of the status of management of the Corrective Action Plan will be submitted on a regular basis to Region 9, USEPA.

The reports will be delivered on a quarterly basis beginning at the end of the next calendar-year quarter following the approval date of this Corrective Action Plan. Reporting will continue on a schedule by mutual agreement between GWA and Region 9 USEPA.

The vehicle to be used for this reporting will be an update of this document.

For Court Order updates/reporting, see the Court Order Submittals, e. g. Quarterly Reports.

1. Sources—Lack of routine maintenance (both corrective and preventative of sources).

- Potential bacteriological and/or chemical contamination of source
- Many wells found to have leaking pipes and valves

Recommendation:

- Lack of adequate site security—missing or damaged fencing and signs of vandalism (graffiti) on structures should be repaired or replaced.
- Begin routine and corrective maintenance of all wellhead appurtenances and well facilities—meters, valves, pumps, air relief valves, piping pressure gauges, etc.

Remove unnecessary items (old lines, gauges, meters, etc.)

Action Plan:
GWA is implementing new O&M SOPs, programs and systems on an on-going basis.

Proposed Action Item Schedule	Task Description
As of 06/25/2013.	55 new SOP's Implemented (assisted by CDM, EPA Grant)
Drafts and planed	CDM continues work, particularly on Asset Management
Average one a month by 06/30/2014	Complete new SOP's and implement
Semi-annually beginning 01/2014	**Training on SOP's Repeats Continuously, Managed for GWA by Ann Borja Supported by CDM Smith funded by EPA SRF.**
Updates (Reporting per Preface)	**Supported by CDM Smith funded by EPA SRF CMMS Is being implemented.**

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2.
Sources—No Wellhead Protection Plan

Many wells are located in close proximity to potential sources of fecal and other sources of contamination, and no wellhead protection plan in place for GWA wells.

- Potential bacteriological and/or chemical contamination of source
- Wells located near potential sources of contamination

Recommendation:

- Possible sewage source upstream (Talofofo Falls Park) - Should notify owner/operators of need to notify Ugum WTP if there is a spill or discharge
- Recreational activities on the Ugum River at the intake site which currently allow people in close proximity to the intake structure should be evaluated.

Action Plan:
GWA will build from the existing 1992 Guam Law, Ch. 7 section 7130 of the Water Resource Development and Operating Regulations (GEPA) entitled "Well Head Protection for Public Water Supply Well". BC to develop a plan to improve monitoring of the wellhead. Plan to be in accordance with existing Guam EPA Wellhead Protection.

Proposed Action Item Schedule	Task Description
05/30/2013	First Draft for GWA review
06/03/2014	First Draft submitted to USEPA
06/29/2015.	Final Submitted to USEPA; EA Engineering Science and Technology, Inc..
	Complete

3. Sources Ugum— Diesel fuel storage tank containment located near intake for Ugum Water Treatment Plant (WTP) is undersized;

Diesel fuel storage tank containment located near intake for Ugum Water Treatment Plant (WTP) is undersized; spill could contaminate the Ugum River. Potential chemical contamination of source

- Diesel fuel storage tank containment area at the intake was visibly undersized and was designed to discharge to the ground where it could flow downhill to the Ugum River

Comment: This item was incorrectly evaluated.
Tank is dual walled construction. Containment is adequate.

Proposed Action Item Schedule	Task Description
	Provide documentation verifying dual wall construction.
05/08/2013	Verification sent to EPA – Complete

4. Sources Well— Some wells have cracks and other openings in the well pads, well casings and improperly sealed sanitary seals.

Some wells have cracks and other openings in the well pads, well casings and improperly sealed sanitary seals. These are direct openings for contamination to enter wells. Potential bacteriological or chemical contamination of source.

- Cracks in well pads and well casings and improperly sealed sanitary seals
- Lack of well pads at some locations

Action Plan:
Initiate repair. Document completion of repair. Engage consultant for independent confirmation of repair work and production of report.

Proposed Action Item Schedule	Task Description
12/1/2013	Initiate repair work
2/1/2013	Engage consultant Brown and Caldwell
4/30/2013	Complete repair work
5/5/2013	Draft report to GWA
6/6/2013	Report sent to USEPA - Complete

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NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items:

5. Sources Well— Missing screens on well casing vents.

Potential contamination of source.

- Missing screens on well casing vents

Action Plan:

Initiate repair. Document completion of repair. Engage consultant for independent confirmation of repair work and production of report.

Proposed Action Item Schedule	Task Description
12/1/2013	Initiate repair work
2/1/2013	Engage consultant Brown and Caldwell
4/30/2013	Complete repair work
5/5/2013	Draft report to GWA
6/6/2013	Report to USEPA
5/13/2013	Report sent to USEPA - Complete

6. Sources Well— Wells have bypass lines that were routed into the ground and off-site without an air gap.

Wells have bypass lines that were routed into the ground and off-site without an air gap. Potential contamination of source.

Many wells found to have bypass lines that were routed into the ground and off-site without an air gap

Action Plan:

Initiate repair. Document completion of repair. Engage consultant for independent confirmation of repair work and production of report.

Proposed Action Item Schedule	Task Description
12/1/2013	Initiate repair work
2/1/2013	Engage consultant Brown and Caldwell
4/30/2013	Complete repair work
5/5/2013	Draft report to GWA
6/6/2013	Report to USEPA
5/23/2013	Report sent to USEPA - Complete

7. Sources Spring--Lack of operating flow meter at spring source makes operation (including chlorine dosing) problematic.

Difficulty in ensuring adequate chlorination/disinfection

Recommendation:

Remove heavy vegetative growth around the clear well structure.

Implement routine and corrective maintenance at all spring appurtenances—meters, valves, pumps, piping, pressure gauges, etc.

Action Plan:

Initiate repair. Document completion of repair.

Proposed Action Item Schedule	Task Description
12/1/2013	Initiate repair work
4/30/2013	Complete repair work
6/6/2013	Report to USEPA
5/23/2013	Report sent to USEPA - Complete

8. Sources Spring-- Santa Rita Spring Box (Clear Well) –

– Gaps between corrugated metal roof and clear well walls allow entry by animals, birds and reptiles. Allow bacteriological contamination to enter source.

Action Plan:

Initiate repair. Document completion of repair.

Proposed Action Item Schedule	Task Description
05/08/2013	Reported to USEPA - Complete

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NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items:

9. Treatment-- Lack of operations and maintenance (Ugum, Santa Rita Spring)

Recommendation:

- Implement routine and corrective maintenance at all spring appurtenances—meters, valves, pumps, piping, pressure gauges, etc.

Ugum training on O&M will be regular refresher classes on annual basis.

Action Plan:

Proposed Action Item Schedule	Task Description
Santa Rita Spring (Ground Water)	
05/08/2013	Santa Rita Spring O&M training was completed an has been sent to USEPA.
05/08/2013	O&M is now under Production Section.
05/31/2014 etc.	Santa Rita Spring O&M training will have annual refreshers.
Ugum Surface Water Treatment Plant	
11/19-23/2012	Latest Training by Siemens/Smithbridge
07/23/2013	Additional Specialized training on coagulation optimization for membranes
08/01/2013	Training certification sent to USEPA
07/01/2014 and thereafter.	**O&M training will have annual refreshers.**
Completed under Court Order	See Court Order Section II C 26 Ugum SOP's - Complete

10. Treatment-- Lack of operating turbidimeter at Santa Rita Spring source.

Action Plan:
Initiate repair. Document completion of repair.

Proposed Action Item Schedule	Task Description
05/08/2013	Verification submitted to USEPA - Complete

11. Treatment-- Plant operators do not regularly conduct jar tests and do not optimize precursor removal at Ugum WTP.

Action Plan:
Prepare Bid or Change Order for TOC. Prepare documentation of training. Provide copies of regular reporting.

Proposed Action Item Schedule	Task Description
5/15/2013	Prepare change order for installation of TOC and appurtenances. Smithbridge
08/12/2013	Completed installation of on-site TOC analyzer.
08/15/2013	Completed training of operators on site TOC analyzer.
07/23/2013	Additional Specialized training on coagulation optimization for membranes
08/01/2013	Training certification sent to USEPA – Complete

12. Treatment-- Inadequate turbidity monitoring and reporting at Ugum

Action Plan:
Address re-programming SCADA. Provide copies of daily submittals sent to GEPA and monthly submittals, and send example reports to USEPA as documentation.

Proposed Action Item Schedule	Task Description
06/06/2013	Send documentation of conformance to USEPA
05/30/2013	Sent documentation of conformance to USEPA - Complete

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13. Treatment-- At least one well (D-5) did not have a chlorination system in place	
Action Plan: Explain that D-5 well is not a point of entry into the potable distribution system issue.	
Proposed Action Item Schedule	**Task Description**
6/6/2013	Report to USEPA
05/31/2013	Report sent to USEPA - Complete

14. Treatment Well-- At least one well, the well log indicated chlorine gas had run out in the past (April 29, 2012) Inadequate chlorination/disinfection could result in exposure to bacteriological contamination.	
Action Plan: GWA to provide the log sheets. This finding is a result of an incorrect assessment	
Proposed Action Item Schedule	**Task Description**
6/6/2013	GWA to send USEPA the log sheet – interpretation was incorrect.
05/31/2013	Sent to USEPA - Complete

15. Water Storage-- Severe internal/external rust and corrosion including roofs, roof vents, walls, base and other welds, anchors allows contaminants to enter tanks. Recommendation: GWA should properly maintain facilities and grounds (remove overgrown vegetation, take away garbage, repair security breaches, etc.	
Action Plan: This is a Court Order project. Work performed will be in accordance with the 2011 court order.	
Proposed Action Item Schedule	**Task Description**
In Progress – Court Order.	See CO Section II C Paragraph 29, Quarterly and Annual Reports

16. Water Storage-- Bolts, many completely rusted through, compromise structural stability of tanks. Recommendation: Potential for tank failure	
Action Plan: This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29.	
Proposed Action Item Schedule	**Task Description**
In Progress – Court Order.	See CO Section II C Paragraph 29, Quarterly and Annual Reports

17. Water Storage-- Inadequate Site Security (holes in fences, missing gates) and unlocked hatches allow easy access to tanks (as demonstrated by vandalism at many tanks). Potential for access by public and consequent contamination.	
Action Plan: This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29. GWA will correct on tanks undergoing major repairs.	
Proposed Action Item Schedule	**Task Description**
In Progress – Court Order.	See CO Section II C Paragraph 29, Quarterly and Annual Reports

18. Water Storage-- Leaking tanks. Recommendation: Could allow contamination to enter.	
Action Plan: This is a Court Ordered project. Work performed will be in accordance with the 2011 court order Paragraph 29.	
Proposed Action Item Schedule	**Task Description**
In Progress – Court Order.	See CO Section II C Paragraph 29, Quarterly and Annual Reports

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NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items:

19. Water Storage-- Flooded, uncovered and unsecured valve vaults Could allow contamination to enter.	
Action Plan: This is a Court Ordered project. Work performed will be in accordance with the 2011 court order Paragraph 29. GWA will correct on tanks undergoing major repairs.	
Proposed Action Item Schedule	**Task Description**
In Progress – Court Order.	See CO Section II C Paragraph 29, Quarterly and Annual Reports- Complete

20. Water Storage-- No screen or flapper on the storage tanks' overflows. Potential for access by public and consequent contamination.	
Action Plan: This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29. GWA will correct on tanks undergoing major repairs.	
Proposed Action Item Schedule	**Task Description**
In Progress – Court Order.	See CO Section II C Paragraph 29, Quarterly and Annual Reports - Complete

21. Water Storage-- Ladders not locked, allow easy potential access by vandals.	
Action Plan: This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29. GWA will correct on tanks undergoing major repairs.	
Proposed Action Item Schedule	**Task Description**
In Progress – Court Order.	Repairs Complete

22. Water Storage-- Ladders severely corroded or no cage will prevent adequate maintenance	
Action Plan: This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29.	
Proposed Action Item Schedule	**Task Description**
In Progress – Court Order.	Repairs Complete

23. Distribution System-- Inadequate cross connection control program exists within GWA. Potential for backflow/backpressure and contamination.	
Action Plan: Engage consultant to develop how GWA can plan for backflow prevention program. Create report documenting procedures for implementing a program.	
Proposed Action Item Schedule	**Task Description**
02/01/2013	Engage consultant Brown and Caldwell
05/05/2013	Submit draft plan for GWA review
06/05/2013	Submitted draft plan to USEPA
NTP issued.	Draft Detailed Cross-Connection Control Plan by PMO Work Order.
Pending CCU approval	GWA recruiting positions to man and execute this project..
Included in Plan	Detailed Cross-Connection Control Plan Technical Memo Completed
Program Completed	**Final plan Completed 02/16/2018. Implementation in Progress**

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NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items:

24. Distribution System-- Undersized water lines impact water pressure and water quality and contribute to potential cross-connections.
Potential for backflow/backpressure and contamination.

Action Plan:
Engage consultant to develop how GWA can plan for small diameter pipeline replacement program. Create report documenting procedures for implementing a program.

Proposed Action Item Schedule	Task Description
02/01/2013	Engage consultant Brown and Caldwell
05/05/2013	Submit draft plan for GWA review
06/05/2013	Submitted draft plan to USEPA
10/01/2013	Approved Plan/CIP for line replacement.
12/31/2013	Submit Approved Plan/CIP for line replacement to PUC.
04/30/2014	Approved of Plan/CIP for line replacement by PUC.
07/01/2014	Begin line replacement program for small diameter pipelines.
01/01/2024	Complete small diameter pipeline replacement.
Updates (Reporting per Preface)	See GWA CIP at < http://guamwaterworks.org/wp-content/uploads/2016/02/GWA-CIP-2015-to-2020-CCU-102715-final-ver.pdf >.

25. Pumps-- No pump controls at many of the booster pump stations; lack of maintenance. Leaking seals in pumps and valves results in intermittent service and supply, lower reliability and decreased pressure.
Recommendation:
Implement routine and corrective maintenance at all spring appurtenances—meters, valves, pumps, piping, pressure gauges, etc.

Action Plan:
Initiate repair. Engage consultant for independent analysis and condition assessment of booster pumping stations. Consultant to develop schedule and cost estimates for implementing upgrades of booster pumping stations. Consultant to prepare a report for rehabilitation program.

Proposed Action Item Schedule	Task Description
12/01/2012	Initiate immediate repairs
02/01/2013	Engage consultant Brown and Caldwell
02/26/2013	5-year CIP approved by CCU
04/30/2013	Complete immediate repairs
05/05/2013	Submit draft report to GWA for review
09/06/2013	Submitted draft report to USEPA for approval
03/30/2014	Final plan for booster station repairs.
Updates (Reporting per Preface)	See GWA CIP at < http://guamwaterworks.org/wp-content/uploads/2016/02/GWA-CIP-2015-to-2020-CCU-102715-final-ver.pdf >.

GUAM WATERWORKS AUTHORITY

Suite 200, Gloria B. Nelson Public Service Building, 688 Rt. 15. Mangilao, GU 96913-6203

Corrective Action Plan (CAP) (Approved 10/21/2014) Quarterly/Annual Update Report

Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

Prepared By: Paul Kemp, Vangie Lujan and John Riegel **Update**: October 25, 2018

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items:

26. Pumps-- Lack of adequate backup pumps. Flooding of booster pump stations.
Results in intermittent service and supply, lower reliability and decreased pressure

Action Plan:
Initiate repair. Engage consultant for independent analysis and condition assessment of booster pumping stations. Consultant to develop schedule and cost estimates for implementing upgrades of booster pumping stations. Consultant to prepare a report for rehabilitation program.

Proposed Action Item Schedule	Task Description
12/01/2012	Initiate immediate repairs
02/01/2013	Engage consultant Brown and Caldwell
02/26/2013	5-year CIP approved by CCU
04/30/2013	Complete immediate repairs
05/05/2013	Submit draft report to GWA for review
09/06/2013	Submitted draft report to USEPA for approval
03/30/2014	Final plan for booster station repairs.
Updates (Reporting per Preface)	See GWA CIP at < http://guamwaterworks.org/wp-content/uploads/2016/02/GWA-CIP-2015-to-2020-CCU-102715-final-ver.pdf >.

27. Pumps-- No controls on well pumps or booster pumps.
Results in intermittent service and supply, lower reliability and decreased pressure.

Action Plan:
Initiate repair. Engage consultant for independent analysis and condition assessment of booster pumping stations. Consultant to develop schedule and cost estimates for implementing upgrades of booster pumping stations. Consultant to prepare a report for rehabilitation program.

Proposed Action Item Schedule	Task Description
12/01/2012	Initiate immediate repairs
02/01/2013	Engage consultant Brown and Caldwell
02/26/2013	5-year CIP approved by CCU
04/30/2013	Complete immediate repairs
05/05/2013	Submit draft report to GWA for review
09/06/2013	Submitted draft report to USEPA for approval
03/30/2014	Final plan for booster station repairs.
Updates (Reporting per Preface)	See GWA CIP at < http://guamwaterworks.org/wp-content/uploads/2016/02/GWA-CIP-2015-to-2020-CCU-102715-final-ver.pdf >.

28. Pumps-- Leaking pump seals, valves, lines, and highly rusted piping.
Results in intermittent service and supply, lower reliability and decreased pressure.

Action Plan:
Initiate repair. Engage consultant for independent analysis and condition assessment of booster pumping stations. Consultant to develop schedule and cost estimates for implementing upgrades of booster pumping stations. Consultant to prepare a report for rehabilitation program.

Proposed Action Item Schedule	Task Description
12/01/2012	Initiate immediate repairs
02/01/2013	Engage consultant Brown and Caldwell
02/26/2013	5-year CIP approved by CCU
04/30/2013	Complete immediate repairs
05/05/2013	Submit draft report to GWA for review
09/06/2013	Submitted draft report to USEPA for approval
Maintenance work in progress	Begin program for booster station repairs, copy to USEPA
Updates (Reporting per Preface)	See GWA CIP at < http://guamwaterworks.org/wp-content/uploads/2016/02/GWA-CIP-2015-to-2020-CCU-102715-final-ver.pdf >.

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Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

Prepared By: Paul Kemp, Vangie Lujan and John Riegel **Update**: October 25, 2018

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items:

29. Water Quality-- Inadequate monitoring and reporting – Ugum WTP and Santa Rita Spring (turbidity and chlorine residual) exceedances (violations) may be going undetected and unreported.
Recommendation:
Continue to improve utility-wide communications to address previous lack of complete communication between departments.

Action Plan:
GWA has made this KPI and it is managed via weekly reports

Proposed Action Item Schedule	Task Description
06/06/2013	GWA to submit weekly report documentation to USEPA.
05/30/2013	GWA submitted documentation to USEPA. Complete

30. SDWA Compliance-- Lead and Copper Rule monitoring overdue.

Action Plan:
GWA has implemented the required LCR monitoring and will proceed to complete and continue as required by the rule without waiting for GEPA to approve the schedule and process. If GEPA ever decides to participate, GWA will make additions that are requested.

Proposed Action Item Schedule	Task Description
12/04/2012	Routine Procedure started.
06/14/2013	Round 1 completed with all sample results below both Pb and Cu action levels.
12/31/2013	Completed second Round of Monitoring
01/31/2014.	Lab results verify GWA is in compliance. - Complete

31. SDWA Compliance-- Unaddressed Stage 2 Disinfection/Disinfectant Byproducts rule (DBP) Rule MCL Violations, required public notification.

Action Plan:
Continue to report in CCR and add quarterly mailings to Central (GU0000003) and or Southern (GU0000001) System customers. GWA to await schedule for Navy water compliance schedule from Fena Reservoir for Central (GU0000003).

Proposed Action Item Schedule	Task Description
05/20/2013	Southern (GU0000001) System is now compliant with Stage 2 DBP Rule
05/20/2013	Central (GU0000003) System is compliant with Stage 2 DBP Rule in all areas except one small part of Agat. Mailings to all Central Customers will continue until clear.
06/06/2013	Initiated quarterly mailings to affected customers. [Central (GU0000003)]
Consecutive System Management	GWA continues to reduce purchases of water from the Fena SWTP which has made the difference in the Central (GU0000003) System.
Navy Water is now in compliance	DBP exceedance Central (GU0000003) System has ended with changes in the Navy Fena Surface Water Treatment Plant's operations, achieving compliance with the Stage 2 DBP Rule.
Quarterly mailings are discontinued.	Complete

32. Administration-- No formal, comprehensive training program for operators and other personnel.
Can result in inappropriate or inadequate operation and negative impacts on water quality.

Action Plan:
GWA to complete an annual Workforce Development Report

Proposed Action Item Schedule	Task Description
01/16/2014	First Annual Workforce Development (Training) Report.
Regular Training Scheduled	**Adapted dependent on subject matter. Assisted by PMO.**
Updates (Reporting per Preface)	**See Comprehensive management Plan 08/27/2013**

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Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

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NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items:

33. Administration-- Hydraulic model is neither complete nor accurate enough to make operational or design decisions. Results in poor design and operational decisions impacting water quality.	
Action Plan: This is a Court Ordered project. Work performed will be in accordance with the 2011 court order Paragraph 29(a)(2).	
Proposed Action Item Schedule	**Task Description**
05/03/2013	Submitted Hydraulic Model report to USEPA under CO 29(a)(2). Complete

34. Administration-- No preventative maintenance programs for most operational areas. Many system components in varying levels of disrepair or failure put system at risk for contamination.	
Action Plan: GWA is working with USEPA and CDM to improve Asset Management	
Proposed Action Item Schedule	**Task Description**
In Progress	GWA/CDM-Smith Asset Management program
Continuously updated	**GWA Asset Management program – Lucity CMMS being implemented**

35. Administration-- Data are collected, but do not have the capacity to analyze the information to assist with operational decisions. Lack of understanding and use of operational data can result in poor system operations and consequent risk for contamination or failure.	
Action Plan: GWA will improve data collection and assessment function – SOP's and Training are in planning stages.	
Proposed Action Item Schedule	**Task Description**
2013	New SOP's and Training
2013 through 2018	Five year development plan for staff capacity for data retrieval and analysis.
Evolved, data collection upgraded.	**Required staff positions created**
Updates (Reporting per Preface)	**Creation of Management analyst positions is completed.**

36. Administration-- Lack of Standard Operating Procedures ("SOPs").	
Action Plan: GWA will conduct SOP training	
Proposed Action Item Schedule	**Task Description**
As of 06/25/2013.	55 new SOP's Implemented (assisted by CDM, EPA Grant)
Drafts and planed	CDM continues work, particularly on Asset Management
Average one a month my 06/30/2014	Complete new SOP's and implement
09/06/2013	Reported status to USEPA
Semi-annual - Continuous	**Training on SOP's**
Updates (Reporting per Preface)	**Generated by GWA Staff - Supplemented by CDM Smith - EPA SRF.**

37. Operator Compliance-- No proper operator certification for system type. Inadequately trained operators do not perform process control adequately, which impacts finished water quality.	
Action Plan: GWA disputes the described deficiency. **GWA has always been in compliance.**	
Proposed Action Item Schedule	**Task Description**
06/06/2013	Submit Certification information USEPA.
05/24/2013	Certification information sent to USEPA - Complete

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Corrective Action Plan (CAP) (Approved 10/21/2014) Quarterly/Annual Update Report

Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

Prepared By: Paul Kemp, Vangie Lujan and John Riegel **Update**: October 25, 2018

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items:

38. Operator Compliance-- Plant operators do not regularly conduct jar tests.
Inadequately trained operators do not perform process control adequately, which impacts finished water quality.

Proposed Action Item Schedule	Task Description
5/15/2013	Prepare change order for installation of TOC and appurtenances. Smithbridge
08/12/2013	Completed installation of on site TOC analyzer.
08/15/2013	Completed training of operators on site TOC analyzer.
07/23/2013	Additional Specialized training on coagulation optimization for membranes
08/01/2013	Training certification sent to USEPA - Complete

39. Operator Compliance-- Plant operators and engineering staff did not understand the correlation between ineffective coagulant dosing.
Inadequately trained operators do not perform process control adequately, which impacts finished water quality.

Proposed Action Item Schedule	Task Description
5/15/2013	Prepare change order for installation of TOC and appurtenances. Smithbridge
08/12/2013	Completed installation of on site TOC analyzer.
08/15/2013	Completed training of operators on site TOC analyzer.
07/23/2013	Additional Specialized training on coagulation optimization for membranes
08/01/2013	Training certification sent to USEPA - Complete

40. Operator Compliance-- No level 4 Operator is actually located on site at the Ugum WTP, as required.
Violation of Guam Operator Certification requirement.

Action Plan:
Level 4 operators are not required at Ugum, Current status requires only Level 3 operators. **GWA has always been in compliance.**

Proposed Action Item Schedule	Task Description
06/06/2013	Submit Certification information USEPA.
05/24/2013	Certification information sent to USEPA - Complete

Status Summary: as of Julyy 30, 2018

Corrective Action Plan Legend	Fill Color	No. of Items
Information and/or future steps	**No Fill**	
Completed – no further action-or pending EPA approval	Green	**37**
Court Order Managed items (some are completed- the others are on schedule)	Blue	**9**
On Schedule or Continuous (Long Term Commitment/Reporting)	Orange	**10**

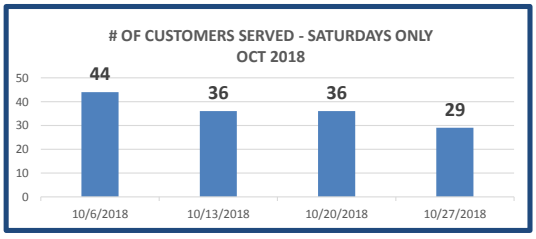
GWA Utility Services Division
Monthly Status Report
Month ending Oct 27, 2018

UTILITY SERVICES DIVISION ACTIVITIES:	WEEKLY AVERAGE SEPT 2018	SEPT 2018 MONTHLY TOTAL	WEEK ENDING: 10/6/2018	WEEK ENDING: 10/13/2018	WEEK ENDING: 10/20/2018	WEEK ENDING: 10/27/2018	WEEKLY AVERAGE OCT 2018	OCT 2018 MONTHLY TOTAL
Collections Unit								
I. Number of accounts cut for nonpayment:	65	259	150	108	124	24	102	406
II. Number of accounts restored for nonpayment:	52	208	108	115	83	52	90	358
III. Number of No water reports responded to:	4	14	5	10	6	4	6	25
IV. Number of Secure/Unsecure valve reports responded to:	1	2	0	2	0	4	2	6
V. Number of Verify reads responded to:	0	0	0	0	3	0	1	3
VI. Number of new pay plans negotiated for **active** accounts :	163	650	157	174	181	0	128	512
VII. Number of active pay plans negotiated and ongoing :	1929		1825	1946	2070	2070	1978	
VIII. Number of **inactive** accounts with a payment arrangement:	0		0	0	0	0	0	
IX. Number of broken payment plans:	82	326	74	53	57	0	46	184
Customer Service Unit								
I. Service Delivery Points:								
a. GBN Public Service Building – Fadian								
i. Total Customers Assisted :	219	874	299	245	249	170	241	963
ii. Total Abandoned Requests :	11	45	19	24	10	10	16	63
iii. Average Wait Time:	6 minutes		8 minutes	7 minutes	6 minutes	7 minutes	7 minutes	
iv. Average Service Time:	12 minutes		11 minutes	12 minutes	12 minutes	11 minutes	12 minutes	
v. Breakdown by request type:								
1. Apply for water	50	198	56	48	50	34	47	188
2. Restore water cut for non payment	14	55	57	27	28	11	31	123
3. Terminate Water	15	61	15	21	8	8	13	52
4. Copy of Bill	32	126	33	43	31	29	34	136
5. Billing Dispute	57	226	76	55	70	46	62	247
6. Billing Dispute follow up	3	13	5	5	4	5	5	19
7. General Questions & Other	31	122	38	28	27	19	28	112
8. Report a water leak	1	3	2	0	0	3	1	5
9. Report water theft	0	1	0	0	0	0	0	0
10. Payment Arrangement	30	118	28	35	40	21	31	124
b. Julale Satellite Office – Hagatna								
i. Total Customers Assisted :	213	851	300	240	272	198	253	1010
ii. Total Abandoned Requests :	14	56	30	18	16	11	19	75
iii. Average Wait Time:	8 minutes		14 minutes	6 minutes	8 minutes	10 minutes	10 minutes	
iv. Average Service Time:	10 minutes		11 minutes	11 minutes	10 minutes	18 minutes	13 minutes	
v. Breakdown by request type:								
1. Apply for water	37	149	59	35	42	38	44	174
2. Restore water cut for non payment	12	47	36	19	19	7	20	81
3. Terminate Water	13	53	18	15	18	15	17	66
4. Copy of Bill	55	220	58	43	52	36	47	189
5. Billing Dispute	45	180	75	71	77	68	73	291
6. Billing Dispute follow up	1	5	2	3	0	2	2	7
7. General Questions & Other	22	89	44	43	51	30	42	168
8. Report a water leak	3	10	3	1	3	1	2	8
9. Report water theft	0	1	0	0	0	0	0	0
10. Payment Arrangement	32	128	43	31	36	24	34	134
c. Upper Tumon Satellite Office – Upper Tumon								
i. Total Customers Assisted :	314	1256	441	389	348	304	371	1482
ii. Total Abandoned Requests :	20	81	19	14	3	2	10	38
iii. Average Wait Time:	12 minutes		15 minutes	14 minutes	9 minutes	9 minutes	12 minutes	
iv. Average Service Time:	12 minutes		11 minutes	13 minutes	11 minutes	10 minutes	11 minutes	
v. Breakdown by request type:								
1. Apply for water	67	267	99	79	85	68	83	331
2. Restore water cut for non payment	25	101	40	36	22	11	27	109
3. Terminate Water	24	97	30	34	18	15	24	97
4. Copy of Bill	68	273	79	66	65	66	69	276
5. Billing Dispute	81	325	88	104	77	69	85	338
6. Billing Dispute follow up	3	10	10	5	7	7	7	29
7. General Questions & Other	34	137	60	48	44	41	48	193
8. Report a water leak	4	15	4	4	2	2	3	12
9. Report water theft	0	1	0	0	1	0	0	1
10. Payment Arrangement	36	145	43	26	36	37	36	142

GWA Utility Services Division
Monthly Status Report
Month ending Oct 27, 2018

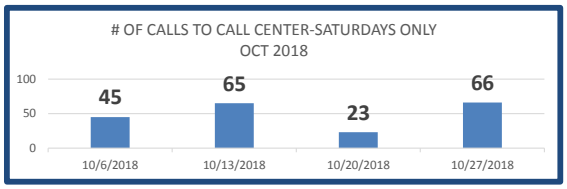
UTILITY SERVICES DIVISION ACTIVITIES:	WEEKLY AVERAGE SEPT 2018	SEPT 2018 MONTHLY TOTAL	WEEK ENDING: 10/6/2018	WEEK ENDING: 10/13/2018	WEEK ENDING: 10/20/2018	WEEK ENDING: 10/27/2018	WEEKLY AVERAGE OCT 2018	OCT 2018 MONTHLY TOTAL
d. Customer Call Center								
i. Calls Recieved :	1208	4830	1660	1569	1332	1081	1411	5642
ii. Calls Immediately Answered :	743	2970	902	835	799	637	793	3173
iii. Calls Abandoned	50	201	62	60	59	37	55	218
iv. Calls Handled by Voice mail:	414	1657	696	672	473	407	562	2248
v. Average duration of calls answered	5 minutes		0:05:53	0:05:33	0:05:28	0:05:11	5 minutes	
vi. Breakdown by request type:								
1. Apply/Terminate info.	18	73	17	24	24	13	20	78
2. Automated Telphone Call	25	100	62	27	29	7	31	125
3. Balance Inquiry	87	347	78	84	99	75	84	336
4. Call Back	49	194	62	79	72	77	73	290
5. Dispatch	33	133	31	28	29	25	28	113
6. Dispute	10	38	12	9	6	0	7	27
7. Follow up	46	183	70	70	59	35	59	234
8. General Questions & Other	113	450	110	136	113	112	118	471
9. GWA Staff	95	381	83	102	114	60	90	359
10. No Water	25	98	25	14	23	6	17	68
11. Online/Phone App Help	26	104	30	25	18	14	22	87
12. Pay by Phone	173	690	177	183	147	215	181	722
13. Pay Plan	54	214	56	71	55	44	57	226
14. Restore Non-payment	22	88	41	36	55	4	34	136
15. Secure/Unsecure Valve	7	27	5	4	8	9	7	26
16. Voice Mail	48	192	76	65	38	51	58	230
17. Water leak	9	36	12	8	8	7	9	35
e. Customer Emails:								
i. Emails Recieved :								
1. customers@guamwaterworks.org	42	169	65	36	44	53	50	198
Breakdown by request type (email):								
a. Apply for water	2	9	0	2	1	1	1	4
b. Terminate Water	3	10	2	0	3	3	2	8
c. Copy of Bill	2	6	6	1	0	0	2	7
d. Billing Dispute & follow up	15	60	12	5	19	18	14	54
e. General Questions & Other	9	34	29	19	13	13	19	74
f. Report a water leak	4	16	7	3	1	3	4	14
g. Report water theft	0	1	0	0	0	0	0	0
h. Online services inquiry	8	31	9	6	7	15	9	37
2. gwaservesme@guamwaterworks.org (realtors and prop mgrs):	1	2	0	0	0	2	1	2
ii. Emails Replied (both):	38	150	47	40	25	57	42	169

	AVERAGE	10/6/2018	10/13/2018	10/20/2018	10/27/2018	AVERAGE
f. Saturday Services: 9AM TO 1PM ONLY	33	44	36	36	29	36
i. VISITS: Breakdown by request type:						
1. Apply for water	7	6	8	8	4	7
2. Restore water cut for non payment	2	7	6	6	1	5
3. Terminate Water	2	3	1	1	0	1
4. Copy of Bill	10	6	6	6	7	6
5. Billing Dispute	7	9	9	9	7	9
6. Billing Dispute follow up	0	1	0	0	0	0
7. General Questions & Other	1	5	1	1	3	3
8. Report a water leak	0	1	0	0	0	0
9. Report water theft	0	0	0	0	0	0
10. Payment Arrangement	5	6	5	5	7	6



GWA Utility Services Division
Monthly Status Report
Month ending Oct 27, 2018

UTILITY SERVICES DIVISION ACTIVITIES:	WEEKLY AVERAGE SEPT 2018	SEPT 2018 MONTHLY TOTAL	WEEK ENDING: 10/6/2018	WEEK ENDING: 10/13/2018	WEEK ENDING: 10/20/2018	WEEK ENDING: 10/27/2018	WEEKLY AVERAGE OCT 2018	OCT 2018 MONTHLY TOTAL
ii. CALLS TO CALL CENTER (Saturday services only):			10/6/2018	10/13/2018	10/20/2018	10/27/2018		
			45	65	23	66		



Dispute Resolution & Document Control

I. Dispute Resolution:			10/6/2018	10/13/2018	10/20/2018	10/27/2018		
a. Number of disputed accounts resolved:	8	33	8	18	12	17	14	55
b. Number of disputed accounts under review:	178	712	178	178	178	178	178	712
II. Document Control:								
a. Number of field activities posted :	348	1393	390	491	635	452	492	1968
b. Number of field activities pending:	722	2888	567	428	335	271	400	1601

Disconnect/Reconnect Unit

I. Number of field activities received:	209	837	295	239	240	168	236	942
II. Number of field activities completed:	231	923	342	262	249	207	265	1060
III.Number of field activities pending field action:	3	11	2	1	3	0	2	6

Meter Reading Unit

I. Number of meters read:			10/6/2018	10/13/2018	10/20/2018	10/27/2018		
a. Electronically Read Meters:	9204	36817	8644	8378	10445	6311	8445	33778
b. Manually Read Meters:	35	140	31	37	57	20	36	145
i. Unread meters (Meters scheduled to be read but not read):	80	321	40	50	120	83	73	293
ii. Number of data logs received:	22	88	35	26	45	36	36	142
iii. Number of data logs retrieved:	22	87	31	12	29	11	21	83
iv. Number of data logs pending field action:	10	40	9	13	35	64	30	121
v. Communication Errors/Reprogramming requests:	1	3	0	0	1	2	1	3
vi. Number of estimated readings (for the week):	68	271	14	41	88	82	56	225
vii. Reasons for Estimations:								
1. Cant locate meter:	2	6	3	2	3	0	2	8
2. Temporary Obstruction	8	32	2	2	4	0	2	8
3. Vicious Dog	1	2	2	1	0	0	1	3
4. Flooded meter	4	14	3	2	3	1	2	9
5. Corrective action requested (database corrections needed)	2	6	6	1	4	2	3	13
6. Possible changed out meter:	8	31	6	9	32	1	12	48
7. Communication/Programming error (code 92's):	5	18	2	2	4	6	4	14
8. Other:	11	44	11	3	13	9	9	36
1. Leaks detected on customer's private line:	1097	4387	1301	1096	1847	658	1226	4902
2. Reverse Flow Detected	95	380	83	57	73	164	94	377
3. No Usage Detected	431	1724	480	422	764	373	510	2039
4. Tamper Code	19	77	25	16	28	14	21	83
c. Electronic Read Percentage:	99%		100%	99%	99%	99%	99%	

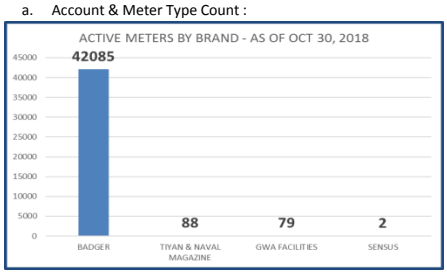
Revenue Protection Unit

I. Number of Inactive Still Consuming Reports rec'd & investigated:	0	0	1	0	1	0	1	2
II.Number of Illegal Connection reports rec'd & investigated:	1	4	0	0	0	1	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
November 2018

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

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A. Summary Table of 2010, 2013 and 2016 Bond

Tables are updated however they require reconciling with Finance Bond Schedules.

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	$ 100,000.00	N/A	N/A	$ 100,000.00	100.00%	0.00%	$ -	N/A	N/A
PW-05-05	"A Series Well Transmission Line	$ 475,709.00	123.13%	-23.13%	$ 369,846.00	100.00%	0.00%	$ -	N/A	N/A
PW 05-06	Water Booster Pump Station	$ 500,000.00	77.87%	0.00%	$ 1,679,964.00	98.03%	0.84%	$ -	N/A	N/A
PW 05-07	Meter Replacement Program	$ 10,450,000.00	87.42%	12.58%	$ 996,532.00	100.00%	0.00%	$ 1,400,000.00	10.71%	89.29%
PW 05-08	Barrigada Tank Repair/Replacement	$ 5,450,000.00	99.55%	0.45%	$ 4,987,000.00	99.32%	0.68%	$ -	N/A	N/A
PW 05-09	Leak Detection	$ 200,000.00	100.06%	-0.06%	$ 16,916.00	100.00%	0.00%	$ 100,000.00	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%	$ 876,294.00	100.00%	0.00%
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	$ 1,900,000.00	18.89%	81.11%	$ -	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	$ 485,743.00	107.02%	-7.02%	$ -	N/A	N/A	$ 1,190,000.00	0.00%	100.00%
PW 05-15	Rehabilitation of Asan Springs	$ 1,100,000.00	34.39%	65.61%	$ -	N/A	N/A	$ -	N/A	N/A
PW 05-16	Master Meters	$ 1,489,957.00	100.00%	0.00%	$ 712,060.00	100.00%	0.00%	$ 2,151,539.00	7.04%	92.96%
PW 09-01	Ugum Water Treatment Plant Intake	$ 700,000.00	96.06%	3.94%	$ 859,801.00	51.20%	48.80%	$ -	N/A	N/A
PW 09-02	Water Wells	$ -	N/A	N/A	$ 3,030,029.00	69.90%	30.10%	$ 2,500,000.00	0.00%	100.00%
PW 09-03	Water Distribution System	$ 3,174,748.00	100.07%	-0.07%	$ 10,912,453.00	95.02%	4.98%	$ -	N/A	N/A
PW 09-04	Pressure Zone Realignment	$ -	N/A	N/A	$ 337,110.00	104.23%	-4.23%	$ 1,141,000.00	64.94%	35.06%
PW 09-06	Central Water Distribution System 2005	$ 775,002.00	128.50%	-28.50%	$ -	N/A	N/A	$ -	N/A	N/A
PW 09-08	Mechanical/Electrical Equipment	$ 1,200,000.00	96.75%	0.00%	$ 426,799.00	96.19%	3.81%	$ -	N/A	N/A
PW 09-09	Water Reservoir Internal/External	$ 2,150,000.00	83.72%	16.28%	$ -	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	100.00%	0.00%	$ 58,830,170.00	26.75%	73.25%
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	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-01	Water Audit Program & Water Loss Control Plan	$ 78,459.00	19.16%	80.84%	$ -	N/A	N/A	$ 550,000.00	70.83%	29.17%
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	110.00%	-10.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-04	Agana Heights & Chaot Tanks	$ 4,700,000.00	100.00%	0.00%	$ 1,330,287.00	99.91%	0.00%	$ 1,220,000.00	40.98%	59.02%
PW 12-05	Tank Major Repair Yigo #1, Mangilao #2, Astumbo#1	$ 1,900,000.00	97.63%	2.37%	$ 11,605,000.00	100.00%	0.00%	$ 1,822,133.00	100.00%	0.00%
PW 12-06	Tank Replacement Piti & Hyundai	$ -	N/A	N/A	$ -	N/A	N/A	$ 7,300,000.00	100.00%	0.00%
PW 12-07	Assessment of Maloliloj Elevated & Yigo Elevated	$ 200,000.00	200.00%	-100.00%	$ 485,117.00	100.00%	0.00%	$ -	N/A	N/A
PW 12-08	Public Water System Asset Inventory/ Condition Assessment	$ 100,000.00	200.00%	-100.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 12-09	Public Water System GIS & Mapping	$ 50,000.00	200.00%	-100.00%	$ -	N/A	N/A	$ -	N/A	N/A
PW 14-01	Fire Hydrant Replacement Program	$ -	N/A	N/A	$ -	N/A	N/A	$ 1,200,000.00	0.00%	100.00%
		$ 42,251,777.85			$ 53,550,914.00			$ 81,331,136.00		

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	$ 1,474,000.00	100.00%	0.00%	$ 650,901.00	100.02%	-0.02%	$ 312,983.00	100.00%	0.00%
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	$ 563,148.00	118.21%	-18.21%	$ 1,714,755.00	17.12%	82.88%
WW 09-06	Wastew ater Collection System Repl/ Rehabilitation	$ 1,001,323.00	103.40%	-3.40%	$ 660,313.00	110.04%	-10.04%	$ 1,055,478.00	52.63%	47.37%
WW 09-08	Facilities Plan/Design for Baza Gardens WWTP	$ 1,250,000.00	132.04%	-32.04%	$ -	N/A	N/A	$ -	N/A	N/A
WW 09-10	Facilities Plan/Design for Agat-Santa Rita WWTP	$ 899,630.00	155.54%	-55.54%	$ -	N/A	N/A	$ -	N/A	N/A
WW 11-03	Baza Gardens STP Replacement	$ 1,488,378.00	144.69%	-51.79%	$ 9,656,874.00	99.69%	0.31%	$ 22,663,776.00	128.73%	0.00%
WW 11-04	Facilities Plan/Design for Umatac-Merizo WWTP	$ 853,858.00	186.52%	-86.52%	$ 371,699.00	100.00%	0.00%	$ 252,105.00	100.00%	0.00%
WW 11-08	Agat/Santa Rita STP Replacement	$ 2,217,700.00	169.65%	-69.65%	$ 67,200,000.00	99.53%	0.47%	$ 2,002,331.00	97.00%	3.00%
WW 12-01	Northern District WWTP Primary Treatment Upgrade	$ 11,750,000.00	101.49%	-1.49%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-02	Biosolids Management Plan	$ 200,000.00	127.15%	-27.15%	$ -	N/A	N/A	$ -	N/A	N/A
WW 12-03	Agana WWTP Interim Measures	$ 11,500,000.00	101.74%	0.00%	$ 673,000.00	100.00%	0.00%	$ -	N/A	N/A
WW 12-04	I&I SSES Southern	$ 800,000.00	143.75%	-43.75%	$ -	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	94.83%	4.22%						
		$ 36,019,889.00			$ 79,775,935.00			$ 48,801,428.00		

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	$ 99,861.00	100.14%	-0.14%	$ -	N/A	N/A
EE 09-02	Electrical Upgrade - Water Wells	$ 354,227.00	100.00%	0.00%	$ 1,500,000.00	100.00%	0.00%	$ -	N/A	N/A
EE 09-03	Electrical Upgrade - Water Booster	$ -	N/A	N/A	$ -	N/A	N/A	$ -	N/A	N/A
EE 09-04	Electrical Upgrade - Water Booster	$ -	N/A	N/A	$ 977.00	100.00%	0.00%	$ -	N/A	N/A
EE 09-05	Electrical Upgrade - Other Water	$ -	N/A	N/A	$ 60,700.00	100.00%	0.00%	$ -	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%	$ 722,359.00	100.00%	0.00%	$ 1,077,497.00	57.31%	42.69%
EE 09-09	SCADA Improvements - Phase 4	$ -	N/A	N/A	$ -	N/A	N/A	$ 4,378,118.00	77.63%	22.37%
		$ 1,748,118.71			$ 2,383,897.00			$ 5,455,615.00		

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	$ 1,171,465.00	99.89%	0.11%	$ 1,127,000.00	100.00%	0.00%
MC 05-02	Land Survey	$ 499,687.32	122.27%	-22.27%	$ 1,052.00	0.00%	-0.05%	$ 1,260,524.00	100.00%	0.00%
MC 09-01	General Plant Improvements	$ 7,241,000.00	99.58%	0.42%	$ 2,441,737.00	32.63%	55.04%	$ 1,543,757.00	97.07%	2.93%
MC 15-01	Information Technology Intergration Improvements							$ 500,000.00	48.81%	51.19%
		$ 7,740,687.32			$ 3,614,254.00			$ 4,431,281.00		

	2010 Bond Allotment	2013 Bond Allotment	2016 Bond Allotment
CIP Water	$ 42,251,777.85	$ 53,550,914.00	$ 81,331,136.00
CIP Wastewater	$ 35,833,458.00	$ 79,775,935.00	$ 48,801,428.00
CIP Electrical	$ 1,748,118.34	$ 2,383,897.00	$ 5,455,615.00
CIP Miscellaneous	$ 7,740,687.32	$ 3,614,254.00	$ 4,431,281.00
	$ 87,574,041.51	$ 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	94	**	$83.339	95.35%	10.64
2013	$139.325	57	**	$135.887	97.53%	28.61
2015	$140.019	27		$83.349	59.53%	37.04
	* - End date November 2013 via CCU Resolution 06-FY2014					
	** - Includes month of November 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. CCU approved GWA management request to extend designer GHD, Inc. contract. GWA to work to take necessary steps to execute Change Order.	
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.	

BID PACKAGE OEA GRANT	**Northern District WWTP Upgrade Clearing and Grading**	
70% Complete	**Activities/Notes:** Bid opening occurred with five (5) bids submitted. GWA evaluating lowest bidder.	
Project Description:	The work performed under this project procurement shall consist of clearing and grading the property, including the excavation of the ponding basin, in preparation for all vertical construction.	

BID PACKAGE OEA GRANT	**Groundwater Well Production Meter Replacement Project**	
50% Complete	**Activities/Notes:** Design drawings and specification under review by GWA engineering.	
Project Description:	The work performed under this project procurement shall consist of replacing the production well meter and associated well head piping tree.	

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:** GWA awaiting from A/E the new bid package for by-pass and repairs.	**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) 90% (Design)	**Activities/Notes:** GWA is reviewing 90% submittal from design firm.	**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
65% Complete	**Activities/Notes:** Santa Rosa, Sinifa and Santa Rita design to be packaged in one IFB. Package expected by Mid-November. 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 Inarajan and Ugum, 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 – Change Order with AIC on going. 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 – 90% 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, Mataguac and GPA fuel farm in Piti.	**Completion Date:** 03/31/10 per approved 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 PW 09-11, PW 12-05	**Yigo/Astumbo Tank Construction (Pernix)**	**Start Date:** 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 was placed on line however site work still on-going.	**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 PW 12-04, PW 12-	**Central Tank Phase I (Chaot #2, Tumon #2, Hyundai) Construction (AIC)**	**Start Date:** 02/8/18

06 AND PW 09-11		
15% Complete	**Activities/Notes:** Nissan tank site: site prep work for foundation work on-going. 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
100% Design 0% Construction Services	**Activities/Notes:** Contractor completion schedule is now extended through March 2019. Additional funding to be requested from the CCU.	**Completion Date:** Nov. 2015 (design); March 2019 (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:** September 2015
100% (PH 1) 100% Complete (PH 2, Part 1) 93% Complete (PH 2, Part B)	**Activities/Notes:** Contractor completion schedule is now extended through March 2019. Additional funding to be requested from the CCU.	**Completion Date:** Completion date to coincide with construction 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- 83% 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, March 2019 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
100% Design 75% Construction Services	**Activities/Notes:** DCA providing engineering services during construction.	**Completion Date:** Delayed, April 2019 projected
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
100% Design 0% Construction Services	**Activities/Notes:** Construction bidding will commence once property issues are resolved.	**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
95% Complete	**Activities/Notes:** Startup testing with fresh water completed; Punch list items to be completed.	**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:** Additional funding to be requested from the CCU.	**Completion Date:** September 2018 to be extended through April 2019
	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:** Performance testing proceeding with fresh water. SCADA system and comm network being finalized.	**Completion Date:** December 2019
	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:** Progress is very slow due to manpower shortages. Pipeline work complete. Headworks, EQ basin major items to be completed.	**Completion Date:** April 2019
	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
100% Design 40% Construction	**Activities/Notes:** · CHL continuing excavation and grading of the North Overland Flow System (OFS) and building pipe wall supports. · Culvert repair work started. Headwall complete. Ditch paving being installed. · DN Tank walls completed. Crew mobilizing to form and pour dome. · Change Proposals: · WW Characterization / Design of Phosphorus Removal System: Change order submitted for GWA signature 10/16/18. · Multiple weather delays to be submitted. - CO #5 for unanticipated drain to capture groundwater flow in area of tank and overland flow terraces submitted 10/12/18. $76,060.69. Draft response being developed. - CO #6 for unanticipated rock excavation submitted 10/12/18. $52,004.12. Draft response being developed. - CO #7 for permit and GWA delays and delay due to rock and water infiltration submitted 10/12/18. $286,974.07. Draft response being developed. - Total of CO 5-7: $415,038.88. To be discussed with GWA the week of 11/26. - Forthcoming - Sheet piles between large lagoon and 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
40%	**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
25% Complete	**Activities/Notes:** Basis of Design is complete. The 30% design is due December 11, 2018.	**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:** 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:** Submittals are still on going. Progress is slow. Letter of Concern sent to G4S on 11/2/2018 regarding delays. After 2 weeks of no reply to the letter, meeting was held with G4S Country Manager, Vincent Walker on 11/16/2018. G4S promise to have remedy plans submitted to GWA by end of business 11/21/2018.	**Completion Date:** August 2019
	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.	

CONSTRUCTION MANAGEMENT EE 09-08, EE 09-09	**SCADA Phase A1 Construction Management (GHD)**	**Start Date:** August 29, 2018
5%	**Activities/Notes:** Reviewing material submittals.	**Completion Date:** August 2019
	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the installation SCADA ready instrumentation at several water and waste water facilities throughout the island. 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.	

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. The contractor is yet to invoice for completed work on four (4) Work Orders. A list of those Work Orders will be given to the contractor.	**Completion Date:** New anticipated complete is December 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, including the lots which are 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	Oct	Nov
Building Permit	11	9	1	13	11	28	35	7	2
Occupancy Permit	3	10	18	16	18	32	4	13	11
New Installation	14	8	7	9	3	18	3	17	13
Sewer Application	15	14	7	6	3	0	0	1	2
Sewer Inspection	0	1	3	0	0	1	0	0	0
Private Utility Acceptance	0	0	0	0	0	0	0	0	0
Relocation of Water Meter	0	0	0	0	0	0	0	0	0
Tapping-Water	1	1	0	0	3	1	1	0	0
Tapping-Sewer	0	1	0	0	0	0	0	0	0
Clearance-Water	3	2	7	10	20	41	44	20	16
Clearance-Sewer	3	2	7	10	20	41	44	20	16
Highway Encroachment	0	4	41	22	25	31	1	10	16
Verification of Utilities	4	4	5	4	1	7	8	3	7
Fire Flow Test	0	0	1	0	0	0	0	0	2
Schedule Water Outage	0	1	0	0	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 11/19/18
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	InfraTech	Procurement 100%. NTP issued November 13, 2018.
				Const. Mgmt	2	8/3/2017	8/3/2019	$ 870,610.41	DCA	CM notified of construction NTP. Pre-construtcion conference to e scheduled.
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	· PPBC working on SMH #8. · Laying pipe between SMH #7 & 8A this week; finally using new trench shoring box. · PPBC continues discharging/dewatering water to sewer; GWA metering discharge. GWA looking like they will stop contractor from discharging soon. Contractor working on producing/updating their dewatering plan and equipment. · Still waiting on SSFM on justification for hours spent on engineering services; provided proposal on T&M basis for additional services. · CO #2: CO to GWA 10/22; Still with Finance. · CO #3: CO under USEPA review; will route to finance after. · Contractor Invoice #8 paid yesterday; working on Invoice #9.
				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	· Final WRMP packages printed and transmitted to GWA engineeirng 11/20/18 · Approximately $74,500 to be added to the task by GWA to reflect actual costs to complete the project.
				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
				Construction		3/30/2019	6/30/2020			GWA has received SRF grant 96902619 therefore GWA to work to schedule procurment for construction activities by November 2018 with actual start occuring sometime in March 2019. .
				Const. Mgmt		3/30/2019	6/30/2020			· 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 55%; GWA received proposed bid "repackage" and is under review. This project will be "transitioned" from the PMO to GWA engineering thus transitioning plan required.
				Const. Mgmt		12/1/2018	12/31/2019			Procurement 90%: Scope and fee negotiations with AMOrient still 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	DesignBuild complete
				Const. Mgmt	4	9/9/2016	3/30/2018	$ 329,353.52	Stanley	CM complete

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	9/3/2018	12/26/2019	$ 3,998,688.00	Insituform	· Planning and cooridination with PropPacific on-going to ensure project site managed accordingly.	
				Construction	5	9/25/2018	12/19/2019	$ 3,407,848.00	PropPacific	· Planning and cooridination with Insituform on-going to ensure project site managed accordingly.	
				Const. Mgmt	6	11/15/2018	12/31/2019	$ 702,678.13	EMPSCO	· Planning and cooridination with Insituform on-going to ensure project site managed accordingly.	

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	6	8/19/2016	3/30/2018 (completion date under analysis)	$ 6,158,240.67	Pacific Rim	· Controls Sub will be on island next week for two weeks to complete and correct the controls issues. · Another punch list walk through and spare parts hand over occurred this week. There are only a couple of punch list items remaining and 3 spare parts items to turn over. · VFD for D-18 was installed on 10/4/2018 and configured by USSI. There still seems to be some control issues to sort out that should be done when NAIC (controls Subcontractor) returns. Capacity increased by nearly 100 gpm. · D-17 drive was changed out with the D-18 drive, but they could not get it functioning properly so they put the original drive back in to keep the well operational. Waiting on next steps from PRC. · Pump at D-22 was reinstalled on 11/27 and pressure tested and leaks have been corrected. Well has not passed the disinfection test and the well is still out of operation. · Well rig test failure still an issue; Vince is coordinating to get a new test completed. Vince noted that they are waiting on a dynamometer to perform the tests. · Volume 2 of the O&M Manual was sent to BC on 10/1. BC is holding Volume 2 in case some components need to be changed in the controls section based on NAIC's future visit. · USSI is supposed to complete the harmonics testing and final VFD programming when the new/relocated drives are installed. · Level sensors with the correct span were received last week.
				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	7	8/2/2016	Due to issue related to Santa Rita sewer project completion under analysis.	$ 1,189,815.00	ProPacific	GWA still working to get final plan form contactor for new SPS that contractor will construct.
				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 55%; GWA received proposed bid "repackage" and is under review. This project will be "transitioned" from the PMO to GWA engineering thus transitioning plan required.
				Const. Mgmt		12/1/2018	12/31/2019			Procurement 90%: Scope and fee negotiations with AMOrient still 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	$2,363,718	Giant Const.	Procurement 98%; engineeirng preparing contractor for signatures.
				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	8	3/8/2017	12/30/2017	$ 2,470,658.00	Pacific Rim	· Record drawings: HDR received final as-builts; packaging them up with other documents now. · Final invoice received (10/10). DPW has not accepted guiderail restoration.
				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
OCTOBER 31, 2018
FINANCIAL AND RELATED REPORTS
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GUAM WATERWORKS AUTHORITY
Balance Sheet
October 31, 2018

SCHEDULE A

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	Unaudited October 31, 2018	Unaudited September 30, 2018	Increase (Decrease)
Current Assets			
Cash			
Unrestricted (Schedule G)	955,500	3,093,944	(2,138,444)
Restricted Funds (Schedule G)	67,579,705	66,805,984	773,721
Accounts Receivable Trade, Net of Allowance for Doubtful Accounts of $4,737,213 at Oct 31, 2018 and $4,669,462 at Sep 30, 2018	17,383,329	17,457,278	(73,949)
Other Receivable	4,132,403	5,168,282	(1,035,879)
Materials & Supplies Inventory, Net of Allowance for Obsolescence of $457,370 at Oct 31, 2018 and $457,370 at Sep 30, 2018	3,052,500	2,949,318	103,182
Total Current Assets	93,103,437	95,474,806	(2,371,368)
Property, Plant and Equipment			
Utility plant in service			
Water system	349,079,326	348,723,173	356,152
Wastewater system	304,567,423	304,567,423	-
Non-utility property	17,241,496	17,241,496	-
Total property	670,888,244	670,532,092	356,152
Less Accumulated Depreciation	(303,831,381)	(302,072,316)	(1,759,065)
Land	3,681,120	3,681,120	-
Construction Work in Progress	178,890,597	178,451,970	438,627
Property, Plant and Equipment, net	549,628,580	550,592,866	(964,286)
Other noncurrent assets			
Restricted cash (Schedule G)	169,029,197	177,176,880	(8,147,683)
Investments (Schedule G)	45,762,638	43,097,913	2,664,725
Other Prepaid Expenses	1,575,215	677,828	897,387
Total other noncurrent assets	216,367,050	220,952,621	(4,585,570)
Total Assets	859,099,068	867,020,292	(7,921,224)
Deferred outflows of resources			
Debt defeasance due to bond refunding	13,394,966	13,405,986	(11,020)
Deferred outflows from pension	4,939,650	4,939,650	-
Total Assets and Deferred Outflows of Resources	**877,433,684**	**885,365,928**	**(7,932,244)**
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET ASSETS			
Current Liabilities			
Current maturities of long-term debt			
Series 2010 Bond	1,800,000	1,800,000	-
Series 2014 Refunding	3,620,000	3,620,000	-
Series 2017 Refunding	295,000	295,000	-
Notes Payable	3,219,993	3,206,158	13,835
Accounts Payable -Trade	5,407,792	5,589,343	(181,550)
Interest Payable	8,551,138	6,427,669	2,123,470
Accrued Payroll and Employee Benefits	815,477	1,520,660	(705,183)
Accrued Annual Leave	1,059,161	1,059,161	-
Current portion of employee annual leave	604,009	604,009	-
Contractors' Payable	15,163,072	25,364,309	(10,201,237)
Customer and Other Deposits	2,134,079	2,131,241	2,839
Other Liabilities	106,997	106,997	-
Total Current Liabilities	42,776,719	51,724,546	(8,947,827)
Long Term Debt, less current maturities			
Series 2010 Revenue Bond	1,895,000	1,895,000	-
Series 2013 Revenue Bond	172,630,000	172,630,000	-
Series 2014 Refunding Bond	68,900,000	68,900,000	-
Series 2016 Revenue Bond	143,310,000	143,310,000	-
Series 2017 Refunding Bond	107,365,000	107,365,000	-
Unamortized Bond Premium/Discount	33,180,910	33,300,619	(119,709)
Notes Payable	2,047,889	2,322,866	(274,977)
Unfunded Ret Liability (GASB 67/68)	49,243,798	49,243,798	-
Employee Annual Leave, Less Current Portion	826,194	826,194	-
Total Liabilities	622,175,509	631,518,022	(9,342,513)
Deferred inflows of resources:			
Deferred inflows from pension	160,769	169,283	(8,514)
Total Liabilities and Deferred Inflows of Resources	622,336,278	631,687,305	(9,351,027)
Net Assets	**255,097,405**	**253,678,622**	**1,418,783**
Total Liabilities, Deferred Inflows of Resources and Net Assets	**877,433,684**	**885,365,928**	**(7,932,244)**

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

	Month to Date		Variance
	Budget October-18	Actual (Unaudited) October-18	Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	5,813,246	5,656,352	(156,895)
Wastewater Revenues	3,247,265	3,151,116	(96,150)
Legislative Surcharge	294,667	296,030	1,363
Other Revenues	38,254	35,745	(2,509)
System Development Charge	97,773	91,670	(6,102)
Total Operating Revenues	9,491,205	9,230,912	(260,292)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	763,975	724,686	39,289
Power Purchases	1,231,315	1,223,757	7,558
Total Utility Costs	1,995,290	1,948,443	46,847
Salaries and Wages	1,782,365	1,778,353	4,012
Pension and Benefits	562,238	550,464	11,773
Total Salaries and Benefits	2,344,603	2,328,818	15,785
Capitalized Labor and Benefits	(308,333)	(308,333)	-
Net Salaries and Benefits	2,036,269	2,020,484	15,785
Administrative and General Expenses			
Sludge removal	153,771	109,101	44,670
Chemicals	185,801	184,182	1,619
Materials & Supplies	188,606	149,300	39,305
Transportation	38,648	29,015	9,633
Communications	15,054	1,498	13,556
Claims	8,417	-	8,417
Insurance	79,461	75,172	4,289
Training & Travel	30,417	19,838	10,578
Advertising	12,500	-	12,500
Miscellaneous	92,632	63,266	29,366
Regulatory Expense	25,029	8,330	16,699
Bad Debts Provision	67,751	67,740	11
Total Administrative and General Expense	898,086	707,442	190,643
Depreciation Expense	1,759,065	1,759,065	(0)
Contractual Expense			
Audit & Computer Maint.	58,783	20,793	37,990
Building rental	38,361	36,603	1,758
Equipment rental	79,980	74,284	5,696
Legal	512	-	512
Laboratory	34,862	34,382	480
Other	213,458	42,728	170,729
Total Contractual Expense	425,956	208,791	217,165
Retiree Supp. Annuities and health care costs	249,871	244,839	5,031
Contribution to Government of Guam	51,975	50,000	1,975
Total Retiree Benefits	301,846	294,839	7,006
Total Operating Expenses	7,416,512	6,939,065	477,447
Earnings (Loss) from Operations	2,074,693	2,291,847	217,154
Interest Income-2010/13/14/16/17 Series Bond	84,943	327,419	242,476
Interest Income-Other Funds	13,856	48,250	34,394
Interest Income-SDC	2,072	16,338	14,266
Interest Expense- 2010/13/14/16/17 Series Bond	(2,387,785)	(2,137,785)	250,000
Interest Expense- ST BOG	(19,762)	(9,543)	10,219
Federal Expenditures	-	-	-
Loss on Asset Disposal	-	-	-
AFUDC	1,157,306	625,000	(532,306)
Amortization of Discount, Premium and Issuance Costs	(17,798)	119,709	137,507
Defeasance due to bond refunding	(16,201)	(11,020)	5,181
Deferred outflows from pension	-	8,514	8,514
Prior Year Adjustment	-	-	-
Total non-operating revenues (expenses)	(1,183,369)	(1,013,117)	170,251
Net Income (Loss) before capital contributions	891,324	1,278,730	387,406
Capital Contributions			
Grants from US Government	5,533,205	140,053	(5,393,152)
Grants from GovGuam & Others	-	-	-
Total Capital Contributions	5,533,205	140,053	(5,393,152)
Change in Net Assets	6,424,529	1,418,783	(5,005,746)
Debt Service Calculation			
Earnings From Operations	2,074,693	2,291,847	
System Development Charge	(97,773)	(91,670)	
Retiree COLA	51,975	50,000	
Interest/Investment Income	13,856	48,250	
Depreciation	1,759,065	1,759,065	
Balance Available for Debt Service per Section 6.12	3,801,817	4,057,493	
Working Capital Reserve Available for Debt Service	934,811	946,431	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	4,736,628	5,003,923	
Debt Service			
Principal	476,250	476,250	
Interest	2,137,785	2,137,785	
Total	2,614,035	2,614,035	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.45	1.55	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.81	1.91	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative for the period ending October 31, 2018 and 2017

SCHEDULE C

	Month to Date Actual (Unaudited) October-18	Month to Date Actual (Unaudited) October-17	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	5,656,352	5,531,297	125,055
Wastewater Revenues	3,151,116	3,191,784	(40,668)
Legislative Surcharge	296,030	289,209	6,821
Other Revenues	35,745	37,495	(1,750)
System Development Charge	91,670	89,249	2,421
Total Operating Revenues	9,230,912	9,139,034	91,878
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	724,686	723,748	(938)
Power Purchases	1,223,757	1,223,874	117
Total Utility Costs	1,948,443	1,947,622	(821)
Salaries and Wages	1,778,353	1,457,217	(321,136)
Pension and Benefits	550,464	491,682	(58,782)
Total Salaries and Benefits	2,328,818	1,948,899	(379,919)
Capitalized Labor and Benefits	(308,333)	(296,147)	12,186
Net Salaries and Benefits	2,020,484	1,652,752	(367,732)
Administrative and General Expenses			
Sludge removal	109,101	125,638	16,537
Chemicals	184,182	182,625	(1,557)
Materials & Supplies	149,300	180,731	31,431
Transportation	29,015	64,001	34,986
Communications	1,498	14,756	13,257
Claims	-	10,803	10,803
Insurance	75,172	76,005	833
Training & Travel	19,838	22,515	2,676
Advertising	-	13,976	13,976
Miscellaneous	63,266	84,556	21,290
Regulatory Expense	8,330	22,121	13,791
Bad Debts Provision	67,740	109,695	41,955
Total Administrative and General Expense	707,442	907,422	199,979
Depreciation Expense	1,759,065	1,528,175	(230,890)
Contractual Expense			
Audit & Computer Maint.	20,793	57,064	36,271
Building rental	36,603	36,603	(0)
Equipment rental	74,284	85,582	11,299
Legal	-	-	-
Laboratory	34,382	34,529	146
Other	42,728	200,242	157,514
Total Contractual Expense	208,791	414,021	205,230
Retiree Supp. Annuities and health care costs	244,839	237,462	(7,377)
Contribution to Government of Guam	50,000	49,833	(167)
Total Retiree Benefits	294,839	287,295	(7,544)
Total Operating Expenses	6,939,065	6,737,287	(201,778)
Earnings (Loss) from Operations	2,291,847	2,401,748	(109,900)
Interest Income-2010/13/14/16/17 Series Bond	327,419	255,374	72,045
Interest Income-Other Funds	48,250	45,645	2,606
Interest Income-SDC	16,338	13,852	2,486
Interest Expense- 2010/13/14/16/17 Series Bond	(2,137,785)	(2,177,468)	39,683
Interest Expense- ST BOG	(9,543)	(30,702)	21,159
Federal Expenditures	-	(62,220)	62,220
Loss on Asset Disposal	-	(162,136)	162,136
AFUDC	625,000	1,041,766	(416,766)
Amortization of Discount, Premium and Issuance Costs	119,709	(42,691)	162,400
Defeasance due to bond refunding	(11,020)	(12,444)	1,424
Deferred outflows from pension	8,514	32,592	(24,078)
Prior Year Adjustment	-	(9,304)	9,304
Total non-operating revenues (expenses)	(1,013,117)	(1,107,736)	94,618
Net Income (Loss) before capital contributions	1,278,730	1,294,012	(15,282)
Capital Contributions			
Grants from US Government	140,053	1,244,712	(1,104,659)
Grants from GovGuam & Others	-	22,681	(22,681)
Total Capital Contributions	140,053	1,267,392	(1,127,339)
Change in Net Assets	1,418,783	2,561,404	(1,142,621)
Debt Service Calculation			
Earnings From Operations	2,291,847	2,401,748	
System Development Charge	(91,670)	(89,249)	
Retiree COLA	50,000	49,833	
Interest/Investment Income	48,250	45,645	
Depreciation	1,759,065	1,528,175	
Balance Available for Debt Service per Section 6.12	4,057,493	3,936,152	
Working Capital Reserve Available for Debt Service	946,431	945,164	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	5,003,923	4,881,316	
Debt Service			
Principal	476,250	433,333	
Interest	2,137,785	1,794,910	
Total	2,614,035	2,228,243	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.55	1.77	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.91	2.19	

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

	Budget October-18	Year to Date Actual (Unaudited) October-18	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	5,813,246	5,656,352	(156,895)
Wastewater Revenues	3,247,265	3,151,116	(96,150)
Legislative Surcharge	294,667	296,030	1,363
Other Revenues	38,254	35,745	(2,509)
System Development Charge	97,773	91,670	(6,102)
Total Operating Revenues	9,491,205	9,230,912	(260,292)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	763,975	724,686	39,289
Power Purchases	1,231,315	1,223,757	7,558
Total Utility Costs	1,995,290	1,948,443	46,847
Salaries and Wages	1,782,365	1,778,353	4,012
Pension and Benefits	562,238	550,464	11,773
Total Salaries and Benefits	2,344,603	2,328,818	15,785
Capitalized Labor and Benefits	(308,333)	(308,333)	-
Net Salaries and Benefits	2,036,269	2,020,484	15,785
Administrative and General Expenses			
Sludge removal	153,771	109,101	44,670
Chemicals	185,801	184,182	1,619
Materials & Supplies	188,606	149,300	39,305
Transportation	38,648	29,015	9,633
Communications	15,054	1,498	13,556
Claims	8,417	-	8,417
Insurance	79,461	75,172	4,289
Training & Travel	30,417	19,838	10,578
Advertising	12,500	-	12,500
Miscellaneous	92,632	63,266	29,366
Regulatory Expense	25,029	8,330	16,699
Bad Debts Provision	67,751	67,740	11
Total Administrative and General Expense	898,086	707,442	190,643
Depreciation Expense	1,759,065	1,759,065	(0)
Contractual Expense			
Audit & Computer Maint.	58,783	20,793	37,990
Building rental	38,361	36,603	1,758
Equipment rental	79,980	74,284	5,696
Legal	512	-	512
Laboratory	34,862	34,382	480
Other	213,458	42,728	170,729
Total Contractual Expense	425,956	208,791	217,165
Retiree Supp. Annuities and health care costs	249,871	244,839	5,031
Contribution to Government of Guam	51,975	50,000	1,975
Total Retiree Benefits	301,846	294,839	7,006
Total Operating Expenses	7,416,512	6,939,065	477,447
Earnings (Loss) from Operations	2,074,693	2,291,847	217,154
Interest Income-2010/13/14/16/17 Series Bond	84,943	327,419	242,476
Interest Income-Other Funds	13,856	48,250	34,394
Interest Income-SDC	2,072	16,338	14,266
Interest Expense- 2010/13/14/16/17 Series Bond	(2,387,785)	(2,137,785)	250,000
Interest Expense- ST BOG	(19,762)	(9,543)	10,219
Federal Expenditures		-	-
Loss on Asset Disposal		-	-
AFUDC	1,157,306	625,000	(532,306)
Amortization of Discount, Premium and Issuance Costs	(17,798)	119,709	137,507
Defeasance due to bond refunding	(16,201)	(11,020)	5,181
Deferred outflows from pension		8,514	8,514
Prior Year Adjustment		-	-
Total non-operating revenues (expenses)	(1,183,369)	(1,013,117)	170,251
Net Income (Loss) before capital contributions	891,324	1,278,730	387,406
Capital Contributions			
Grants from US Government	5,533,205	140,053	(5,393,152)
Grants from GovGuam & Others	-	-	-
Total Capital Contributions	5,533,205	140,053	(5,393,152)
Change in Net Assets	6,424,529	1,418,783	(5,005,746)
Debt Service Calculation			
Earnings From Operations	2,074,693	2,291,847	
System Development Charge	(97,773)	(91,670)	
Retiree COLA	51,975	50,000	
Interest/Investment Income	13,856	48,250	
Depreciation	1,759,065	1,759,065	
Balance Available for Debt Service per Section 6.12	3,801,817	4,057,493	
Working Capital Reserve Available for Debt Service	934,811	946,431	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	4,736,628	5,003,923	
Debt Service			
Principal	476,250	476,250	
Interest	2,137,785	2,137,785	
Total	2,614,035	2,614,035	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.45	1.55	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.81	1.91	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative for the period ending October 31, 2018 and 2017

SCHEDULE E

	Year to Date Actual (Unaudited) October-18	Year to Date Actual (Unaudited) October-17	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	5,656,352	5,531,297	125,055
Wastewater Revenues	3,151,116	3,191,784	(40,668)
Legislative Surcharge	296,030	289,209	6,821
Other Revenues	35,745	37,495	(1,750)
System Development Charge	91,670	89,249	2,421
Total Operating Revenues	9,230,912	9,139,034	91,878
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	724,686	723,748	(938)
Power Purchases	1,223,757	1,223,874	117
Total Utility Costs	1,948,443	1,947,622	(821)
Salaries and Wages	1,778,353	1,457,217	(321,136)
Pension and Benefits	550,464	491,682	(58,782)
Total Salaries and Benefits	2,328,818	1,948,899	(379,919)
Capitalized Labor and Benefits	(308,333)	(296,147)	12,186
Net Salaries and Benefits	2,020,484	1,652,752	(367,732)
Administrative and General Expenses			
Sludge removal	109,101	125,638	16,537
Chemicals	184,182	182,625	(1,557)
Materials & Supplies	149,300	180,731	31,431
Transportation	29,015	64,001	34,986
Communications	1,498	14,756	13,257
Claims	-	10,803	10,803
Insurance	75,172	76,005	833
Training & Travel	19,838	22,515	2,676
Advertising	-	13,976	13,976
Miscellaneous	63,266	84,556	21,290
Regulatory Expense	8,330	22,121	13,791
Bad Debts Provision	67,740	109,695	41,955
Total Administrative and General Expense	707,442	907,422	199,979
Depreciation Expense	1,759,065	1,528,175	(230,890)
Contractual Expense			
Audit & Computer Maint.	20,793	57,064	36,271
Building rental	36,603	36,603	(0)
Equipment rental	74,284	85,582	11,299
Legal	-	-	-
Laboratory	34,382	34,529	146
Other	42,728	200,242	157,514
Total Contractual Expense	208,791	414,021	205,230
Retiree Supp. Annuities and health care costs	244,839	237,462	(7,377)
Contribution to Government of Guam	50,000	49,833	(167)
Total Retiree Benefits	294,839	287,295	(7,544)
Total Operating Expenses	6,939,065	6,737,287	(201,778)
Earnings (Loss) from Operations	2,291,847	2,401,748	(109,900)
Interest Income-2010/13/14/16/17 Series Bond	327,419	255,374	72,045
Interest Income-Other Funds	48,250	45,645	2,606
Interest Income-SDC	16,338	13,852	2,486
Interest Expense- 2010/13/14/16/17 Series Bond	(2,137,785)	(2,177,468)	39,683
Interest Expense- ST BOG	(9,543)	(30,702)	21,159
Federal Expenditures	-	(62,220)	62,220
Loss on Asset Disposal	-	(162,136)	162,136
AFUDC	625,000	1,041,766	(416,766)
Amortization of Discount, Premium and Issuance Costs	119,709	(42,691)	162,400
Defeasance due to bond refunding	(11,020)	(12,444)	1,424
Deferred outflows from pension	8,514	32,592	(24,078)
Prior Year Adjustment	-	(9,304)	9,304
Total non-operating revenues (expenses)	(1,013,117)	(1,107,736)	94,618
Net Income (Loss) before capital contributions	1,278,730	1,294,012	(15,282)
Capital Contributions			
Grants from US Government	140,053	1,244,712	(1,104,659)
Grants from GovGuam & Others	-	22,681	(22,681)
Total Capital Contributions	140,053	1,267,392	(1,127,339)
Change in Net Assets	1,418,783	2,561,404	(1,142,621)
Debt Service Calculation			
Earnings From Operations	2,291,847	2,401,748	
System Development Charge	(91,670)	(89,249)	
Retiree COLA	50,000	49,833	
Interest/Investment Income	48,250	45,645	
Depreciation	1,759,065	1,528,175	
Balance Available for Debt Service per Section 6.12	4,057,493	3,936,152	
Working Capital Reserve Available for Debt Service	946,431	945,164	
Transfer to Working Capital- Debt Service Reserve	-	-	
Transfer to Working Capital- O&M Reserve	-	-	
Balance Available for Debt Service inclusive of reserves	5,003,923	4,881,316	
Debt Service			
Principal	476,250	433,333	
Interest	2,137,785	1,794,910	
Total	2,614,035	2,228,243	
Debt Service Coverage (1.25X)- per Section 6.12 (Indenture)	1.55	1.77	
Debt Service Coverage (1.75X) inclusive of reserves (PUC)	1.91	2.19	

SCHEDULE F
As of 10/31/18

Bond Compliance

		($$$) Per Indenture	($$$) Bond 2010/2013/2014/2016/2017
• Operation and Maintenance Fund-BOG	*Equivalent to 55 days of the annual O&M budget less depreciation*	$9.7M	$9.7M
• Bond Reserve Fund - US Bank	*Fully funded- Principal and Interest (Bond Series 2010, 2013, 2014 Refunding, 2016 and 2017 Refunding)*	$35.2M	$35.2M
• 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	$26.2K

GUAM WATERWORKS AUTHORITY
Restricted and Unrestricted Cash Summary
FY2019

SCHEDULE G

Description	Unaudited October 31, 2018	Unaudited September 30, 2018	Increase (Decrease)
UNRESTRICTED			
Change Fund	2,000	2,000	-
Petty Cash	5,000	5,000	-
BOG - Deposit Accounts	948,500	3,086,944	(2,138,444)
Sub-total Unrestricted	**955,500**	**3,093,944**	**(2,138,444)**
RESTRICTED			
Collection Accounts	110,412	227,173	(116,762)
BOG Deposit Accounts	7,871,006	7,817,743	53,263
BP Deposit Accounts	1,048,240	959,151	89,088
BOG Revenue Trust Fund	7,175,901	6,535,779	640,122
BOG O & M Reserve	13,684,426	13,666,109	18,316
BOG Debt Service Reserve	11,357,168	11,341,967	15,201
BOG CAPEX Fund	16,095,106	16,073,011	22,095
	57,342,259	**56,620,933**	**721,325**
BOG - SDC Deposit	2,737,447	2,935,050	(197,604)
BOG - SDC CDs	7,500,000	7,250,000	250,000
Total Restricted	**67,579,705**	**66,805,984**	**773,721**
Reserve Funds			
BOG Series 05 OMRRRF Fund	17,423,213	17,423,213	-
BOG Series 13 Construction Fund	33,983,886	36,222,062	(2,238,176)
BOG Series 14 Refunding Construction Fund	742,890	741,895	994
BOG Series 16 Construction Fund	110,116,238	116,036,000	(5,919,762)
BOG Series 17 Refunding Construction Fund	6,762,970	6,753,709	9,261
Total Restricted - Held by Trustee	**169,029,197**	**177,176,880**	**(8,147,683)**
USB Series 2013 Debt Service Fund	3,140,770	2,360,451	780,319
USB Series 2013 Debt Service Reserve Fund	12,031,688	12,031,688	-
USB Series 2014 Refunding Debt Service Fund	2,436,022	1,833,235	602,787
USB Series 2014 Refunding Debt Service Reserve Fund	8,013,929	7,972,243	41,686
USB Series 2016 Debt Service Fund	2,404,729	1,805,556	599,173
USB Series 2016 Debt Service Reserve Fund	7,594,606	7,594,603	3
USB Series 2010 Debt Service Fund	669,719	503,751	165,968
USB Series 2017 Refunding Debt Service Reserve Fund	7,566,460	7,566,460	-
USB Series 2017 Debt Service Fund	1,904,715	1,429,927	474,789
Total Investments	**45,762,638**	**43,097,913**	**2,664,725**
Total Restricted and Unrestricted Cash	**283,327,040**	**290,174,720**	**(6,847,680)**

SCHEDULE H

Guam Waterworks Authority
Statement of Cash Flows (Unaudited)
FY2019

	YTD Oct-18
Increase (decrease) in cash	
Cash flows from operating activities:	
Cash received from trade and others	8,909,404
Cash payments to suppliers/contractors for goods and services	(3,979,056)
Cash payments to employees for services	(3,029,021)
Net cash provided by operating activities	1,901,327
Cash flows from capital and related financing activities:	
Contributed capital received (grants)	1,470,406
Acquisition of utility plant	(10,371,016)
Repayment of Long Term Debt	(380,851)
Interest expense	93,345
Net cash provided by (used in) capital and related financing activities	(9,188,116)
Cash flows from investing activities:	
Transfers from (to) restricted fund	4,772,675
Interest income received	375,670
Net cash provided by investing activities	5,148,345
Net increase (decrease) in cash	(2,138,444)
Unrestricted cash at beginning of the period	3,093,944
Unrestricted cash at end of period	955,500
Reconciliation of operating loss to net cash provided by operating activities:	
Operating Income (loss)	2,200,177
Adjustments to reconcile to net cash provided by operating activities:	
Depreciation expense	1,759,065
Other Expense/income	59,226
(Increase) decrease in assets:	
Accounts receivable	(232,676)
Materials and supplies inventory	(103,182)
Other Assets	(897,387)
Increase (decrease) in liabilities:	
Accounts payable, Contractors, Retention & Escrow Deposit	(181,550)
Accrued payroll	(705,183)
Customer deposits	2,839
Net cash provided by operating activities	1,901,327

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

SCHEDULE I

A G I N G

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	5	$ 33,785	$ 29,460	$ 29,558	$ 31,837	$ 188,055	$ 312,695
Guam Memorial Hospital Authority	3	30,713	36,580	-	-	-	67,293
Port Authority of Guam	3	47,375	16,652	-	-	-	64,027
Guam Power Authority	24	18,439	-	-	-	6,705	25,145
Guam Housing & Urban Renewal Authority	9	8,056	200	-	-	1,067	9,324
University of Guam	2	8,285	-	-	-	-	8,285
Guam Economic Development Authority	1	-	-	-	-	4,860	4,860
GHURA - Agafa Gumas Park	1	-	-	-	-	1,117.01	1,117.01
Guam Housing Corporation	1	31	-	-	-	-	31
	49	**$ 146,683**	**$ 82,892**	**$ 29,558**	**$ 31,837**	**$ 201,804**	**$ 492,775**
Department of Parks & Recreation	22	160,820	139,495	92,112	89,323	569,325	1,051,075
Department of Education	48	202,569	206,976	86,033	1,376	-	496,954
Department of Public Health & Social Services	7	7,476	7,230	3,176	418	95,046	113,347
Department of Corrections	2	25,192	-	-	-	-	25,192
Department of Public Works	11	12,093	-	-	-	7,220	19,313
Mayors Council of Guam	55	13,499	931	24	24	33	14,510
Guam Fire Department	11	8,002	2,151	1,493	437	-	12,083
Department of Military Affairs/GUARNG	1	3,564	1,996	-	-	-	5,560
Office of The Governor	2	5,161	-	-	-	-	5,161
Guam Police Department	2	2,101	-	-	-	-	2,101
Department of Chamorro Affairs	2	1,980	-	-	-	-	1,980
Department of Agriculture	2	1,889	-	-	-	-	1,889
Guam Visitors Bureau	1	1,597	-	-	-	-	1,597
Department of Youth Affairs	4	487	23	1,068	-	-	1,579
Guam Solid Waste Authority	2	1,381	-	-	-	-	1,381
Sanctuary Inc	1	1,248	-	-	-	-	1,248
Division of Senior Citizens, DPH&SS	2	412	148	193	9	-	763
Guam Veterans Affairs Office	2	242	255	-	-	-	498
Department of Mental Health	1	412	-	-	-	-	412
Department of Customs & Quarantine	1	389	-	-	-	-	389
Department of Administration	1	282	-	-	-	-	282
The Office of the Dededo Mayor	1	233	-	-	-	-	233
Guam Public Library	4	173	-	-	-	-	173
Merizo Mayor	1	85	56	-	-	-	141
Guam Energy Office	1	73	-	-	-	-	73
	187	**$ 451,357**	**$ 359,262**	**$ 184,100**	**$ 91,588**	**$ 671,624**	**$ 1,757,931**
TOTAL October 31, 2018	**242**	**$ 601,613**	**$ 442,315**	**$ 213,658**	**$ 123,425**	**$ 873,428**	**$ 2,254,439**
TOTAL September 30, 2018	**326**	**$ 793,948**	**$ 424,797**	**$ 324,413**	**$ 190,444**	**$ 975,977**	**$ 2,709,580**
% INCREASE/ (DECREASE)	**-26%**	**-24%**	**4%**	**-34%**	**-35%**	**-11%**	**-17%**

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

SCHEDULE J

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	Adjusted Project Cost	EXPENDITURES AS OF 10/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	Construction fund balance AS OF 10/31/18
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	61,652	$ 4,986,611	$ 389	$ 62,041
Leak Detection	$ 100,000	$ 16,916	16,916	(0)	$ 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	424,202	435,599	$ 859,801	$ (0)	$ 435,599
Water Wells	$ 4,200,000	$ 3,030,029	2,214,198	31,324	$ 2,245,522	$ 784,507	$ 815,832
Water Distribution System	$ 12,000,000	$ 10,912,453	8,274,385	2,335,599	$ 10,609,984	$ 302,469	$ 2,638,068
Pressure Zone Realignment /	$ 1,000,000	$ 337,110	336,036	1,074	$ 337,110	$ 0	$ 1,074
Mechanical/Electrical Equipment	$ 430,000	$ 426,799	261,981	164,818	$ 426,799	$ -	$ 164,818
Water Reservoir Internal/External	$ 800,000	$ -	-	-	$ -	$ -	$ -
Water System Reservoirs 2005 Improvements	$ 21,000,000	$ 13,878,000	11,803,314	2,074,686	$ 13,878,000	$ -	$ 2,074,686
Ugum Water Treatment Plant Reservoir	$ 7,000,000	$ -	-	-	$ -	$ -	$ -
Agana Heights & Chaot Tanks	$ 4,500,000	$ 1,330,287	241,753	1,088,534	$ 1,330,287	$ (0)	$ 1,088,534
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 13,500,000	$ 11,605,000	10,140,489	1,464,136	$ 11,604,625	$ 375	$ 1,464,511
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	84,537	$ 650,901	$ 0	$ 84,537
Lift Station Upgrades	$ 5,000,000	$ 563,148	653,744	(90,596)	$ 563,148	$ 0	$ (90,596)
Wastewater Collection System Repl/Rehab	$ 6,500,000	$ 660,313	578,438	81,875	$ 660,313	$ -	$ 81,875
Baza Gardens STP Replacement		$ 9,656,874	2,688,166	6,938,514	$ 9,626,679	$ 30,195	$ 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	51,866,710	14,998,891	$ 66,865,601	$ 334,399	$ 15,333,290
Agana WWTP Interim Measures		$ 673,000	660,751	12,249	$ 673,000	$ 0	$ 12,249
Umatac Merizo Replacement	$ 2,000,000	$ -	-	-	$ -	$ -	$ -
		$ -					
Wastewater Pump Station Electrical Upgrade	$ 620,000	$ 99,861	94,964	4,897	$ 99,861	$ -	$ 4,897
Electrical Upgrade - Water Wells	$ 1,500,000	$ 1,500,000	1,487,413	12,587	$ 1,500,000	$ 0	$ 12,587
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	7,785	$ 1,170,822	$ 643	$ 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	1,350,918	1,090,820	$ 2,441,737	$ (0)	$ 1,090,819
Allowance for COI							$ 275,005
Interest Earned							$ 929,575
Total Construction Fund (2013 Series Revenue Bond)	**$ 139,325,000**	**$ 139,325,000**	**$ 106,545,694**	**$ 31,326,330**	**$ 137,872,024**	**$ 1,452,976**	**$ 33,983,886**

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

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

SCHEDULE K

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 10/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	20% PUC AS OF 10/31/18	CONSTRUCTION FUND BALANCE AS OF 10/31/18
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	$ -		$ -
Baza Gardens Wastewater Treatment Plant	$ 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 Reducti	$ 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
Total Construction Fund (2014 Series Refu	$ 82,930,086	$ 89,711,698	$ 88,981,263	$ 669,600	$ 89,711,543	$ 1	$ 13,990,813	$ 731,063
Interest Earned	$ 6,781,612	$ (0)				$ (0)		$ 11,827
Total Project Cost Funding	**$ 89,711,698**	**$ 89,711,698**	**$ 88,981,263**	**$ 669,600**	**$ 89,711,543**	**$ 1**	**$ 13,990,813**	**$ 742,890**

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

SCHEDULE L

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 10/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	CONSTRUCTION FUND BALANCE AS OF 10/31/18
Water Booster Pump Station	$ 4,139,000	$ -	$ -	$ -	$ -	$ -	$ -
Meter Replacement Program	$ 4,501,000	$ 1,400,000	$ 149,970	$ 30	$ 150,000	$ 1,250,000	$ 1,250,030
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	$ 535,947	$ 340,347	$ 876,294	$ -	$ 340,347
Deep Well Rehabilitation	$ 250,000	$ 250,000	$ 203	$ 109,810	$ 110,013	$ 139,987	$ 249,797
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	$ -	$ 39,703	$ 39,703	$ 2,460,297	$ 2,500,000
Water Distribution System	$ 2,049,000	$ -	$ -	$ -	$ -	$ -	$ -
Pressure Zone Realignment /	$ 1,141,000	$ 1,141,000	$ -	$ 741,000	$ 741,000	$ 400,000	$ 1,141,000
Mechanical/Electrical Equipment	$ 100,000	$ -	$ -	$ -	$ -	$ -	$ -
Water Reservoir Internal/External	$ 800,000	$ 800,000	$ -	$ 800,000	$ 800,000	$ -	$ 800,000
Water System Reservoirs 2005 Improvements	$ 42,350,000	$ 58,830,170	$ 2,844,339	$ 13,282,543	$ 16,126,882	$ 42,703,288	$ 55,985,831
Ugum Water Treatment Plant Reservoir	$ 6,410,000	$ -	$ -	$ -	$ -	$ -	$ -
Water Audit Program & Water Loss Control Plan	$ 1,000,000	$ 550,000	$ -	$ 389,562	$ 389,562	$ 160,438	$ 550,000
Agana Heights & Chaot Tanks	$ 1,220,000	$ 1,220,000	$ -	$ 500,000	$ 500,000	$ 720,000	$ 1,220,000
Tank Major Repair Yigo#1 Mangilao#2 Agat#2	$ 1,895,000	$ 1,822,133	$ -	$ 1,822,133	$ 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	$ 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	$ 261,988	$ 50,995	$ 312,983	$ -	$ 50,995
Lift Station Upgrades	$ 2,404,000	$ 1,714,755	$ 232,880	$ 510,620	$ 743,500	$ 971,255	$ 1,481,875
Wastewater Collection System Repl/Rehab	$ 2,920,000	$ 1,055,478	$ 21,090	$ 537,401	$ 558,491	$ 496,987	$ 1,034,388
Baza Gardens STP Replacement	$ 16,700,000	$ 22,663,776	$ 16,920,723	$ 5,743,052	$ 22,663,775	$ 1	$ 5,743,053
Facilities Plan/Design for Umatac-Merizo WWTP	$ 527,000	$ 252,105	$ 239,065	$ 13,040	$ 252,105	$ -	$ 13,040
Agat/Santa Rita STP Replacement	$ 3,000,000	$ 2,002,331	$ 1,427,742	$ 514,590	$ 1,942,332	$ 59,999	$ 574,589
Agana WWTP Interim Measures	$ 827,000	$ -			$ -	$ -	$ -
Umatac Merizo Replacement	$ 8,000,000	$ 20,800,000	$ 5,881,277	$ 14,835,698	$ 20,716,975	$ 83,025	$ 14,918,723
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	$ 409,675	$ 392,328	$ 802,003	$ 275,494	$ 667,822
SCADA Improvements – Phase 4	$ 6,500,000	$ 4,378,118	$ 141,615	$ 3,802,134	$ 3,943,749	$ 434,369	$ 4,236,503
Laboratory Modernization	$ 1,127,000	$ 1,127,000	$ 1,127,000	$ -	$ 1,127,000	$ -	$ -
Land Survey	$ 1,998,000	$ 1,260,524	$ 494,009	$ 766,514	$ 1,260,524	$ 0	$ 766,515
General Plant Improvements / Water	$ 2,769,463	$ 1,543,760	$ 716,554	$ 790,097	$ 1,506,652	$ 37,108	$ 827,206
Information Technology Integration Improvements	$ 500,000	$ 500,000	$ 244,068	$ -	$ 244,068	$ 255,932	$ 255,932
Interest Earned		$ -					$ 1,896,459
Total Construction Fund (2016 Series Revenue E	**$ 140,019,463**	**$ 140,019,463**	**$ 31,799,684**	**$ 53,281,597**	**$ 85,081,282**	**$ 54,938,181**	**$ 110,116,238**

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

SCHEDULE M

PROJECT NAME	ORIGINAL APPROVED PROJECT COST	ADJUSTED PROJECT COST	EXPENDITURES AS OF 10/31/18	OUTSTANDING ENCUMBRANCES	TOTAL EXPENDITURES AND ENCUMBRANCES	UNOBLIGATED PROJECT COST	CONSTRUCTION FUND BALANCE AS OF 10/31/18
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	$ 81,104	$ 332,238	$ 1,567,762	$ 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	$ 429,866	$ 1,513,683	$ 636,317	$ 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	$ 187,564	$ 911,155	$ 90,168	$ 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	$ (1)	$ 386
Northern District WWTP Primary Treatment Upgrades	$ -	$ 11,743,514	$ 11,532,253	$ 25,059	$ 11,557,313	$ 186,201	$ 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	$ 45,076	$ 11,300,000	$ (0)	$ 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	$ 948,250	$ -	$ 948,250	$ 51,750	$ 51,750
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							$ 161,097
Total Construction Fund (2010 Series Revenue Bond)	**$ 87,402,000**	**$ 87,402,000**	**$ 80,800,127**	**$ 2,798,024**	**$ 83,598,151**	**$ 3,803,849**	**$ 6,762,970**

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

GUAM WATERWORKS AUTHORITY

Guam Waterworks Authority

VEHICLE FLEET STATUS

11/15/2018

EQUIPMENT STATUS					SUMMARY						
Description	Number of Equipment	Number of Equipment Available	Number of Equipment Not Available	Percentage	Operational	Operational w/Rprs Pending	In Shop-Accident Repairs	In Shop-Assessment Pending	In Shop-Repairs Pending	In Shop-Vendor Repairs	Recommend Survey
Backhoe	5	2	3	40%	2	0	0	0	0	1	2
Bobcat	1	1	0	100%	1	0	0	0	0	0	0
Boom Truck	2	1	1	50%	1	0	0	0	0	0	1
Crane	2	1	1	50%	1	0	0	0	0	0	1
Dump Truck	3	1	2	33%	1	0	0	0	2	0	0
Flat Bed	1	0	1	0%	0	0	0	0	0	0	1
Forklift	7	5	2	71%	5	0	0	0	1	0	1
Fuel Tanker	1	1	0	100%	1	0	0	0	0	0	0
Heavy Duty	10	7	3	70%	5	0	0	0	0	1	2
Hoist Rig	1	1	0	100%	1	0	0	0	0	0	0
Light	176	126	63	72%	126	1	4	1	11	3	44
Mini Backhoe	4	1	3	25%	1	0	0	0	2	1	0
Pumper Truck	1	1	0	100%	1	0	0	0	0	0	0
Skidster	1	1	0	100%	1	0	0	0	0	0	0
Sludge Truck	5	2	3	40%	1	1	0	0	0	3	0
Tow	1	0	1	0%	0	0	0	0	0	0	1
Tractor	2	1	1	50%	1	0	0	0	1	0	0
Tractor Mower	1	1	0	100%	1	0	0	0	0	0	0
Trailer	15	12	3	80%	12	0	0	0	1	0	2
Trencher	1	1	0	100%	1	0	0	0	0	0	0
Vaccon	1	0	1	0%	0	0	0	0	0	1	0
Vacuum Truck	3	1	2	33%	1	0	0	0	0	2	0
Water Buffalo	2	2	0	100%	2	0	0	0	0	0	0
Water Tanker	5	4	1	80%	2	0	0	0	0	2	1
Compressor	1	1	0	100%	1	0	0	0	0	0	0
Total	252	176	93		176	2	4	1	18	14	56

Guam Waterworks Authority	Date: 11/16/2018 Time:

GUAM WATERWORKS AUTHORITY

WATER DISTRIBUTION FACILITIES REPORT

REVIEWS

TOTAL PUMPS INSTALLED	51	OVERAL AVERAGE	*97%*
TOTAL PUMPS OPERATIONAL	49	% OF OPERATING PUMPS	*96%*
TOTAL BOOSTER PUMP STATIONS	25		

Northern District

NO:	FACILITY	PUMP HORSEPOWER	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	PUMP AND MOTOR INVENTORY
1	Gayinero	20	2	2	100%	OP	A						
2	Mataguac	25	2	2	100%	OP	A						
3	Santa Rosa	15	2	1	50%	OP	A	Pump 2 burnt., currently being rewound.					
4	Hyundai	40	2	1	50%	OP	A	Station undergoing renovation.					
5	Access	60	2	2	100%	OP	A						
6	Chln. Palauan	5	2	2	100%	N/A							
7	Nimitz Hill	7.5	2	2	100%	N/A							
8	Adawag	1.5	2	2	100%	N/A							
9	Pale Kiren	1	1	1	100%	N/A							
10	Ulloa/Untalan	1	2	2	100%	OP	A						
11	Latte Heights	15	2	2	100%	OP	A						
	TOTAL = 11		**21**	**19**	**90%**								
pump availability =no of operational pumps/no of pumps*100%													

Central District

NO:	FACILITY	PUMP HORSEPOWER	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	Pago	150 / 100	3	3	100%	0P	A						
2	Brigade	60	3	3	100%	OP	A						
3	Windward Hills	200 / 75	3	3	100%	OP	A						
4	Santa Rita Spring	40	2	2	100%	OP	A						
5	Santa Ana (Lower)	25	2	2	100%	N/A				Need to operate valve manually for check valve.			
6	Camacho	1	1	1	100%	N/A							
7	Tenorio	1.5	1	1	100%	N/A							
	Total=7		**15**	**15**	**100%**								
pump availability =no of operational pumps/no of pumps*100%													

Southern District

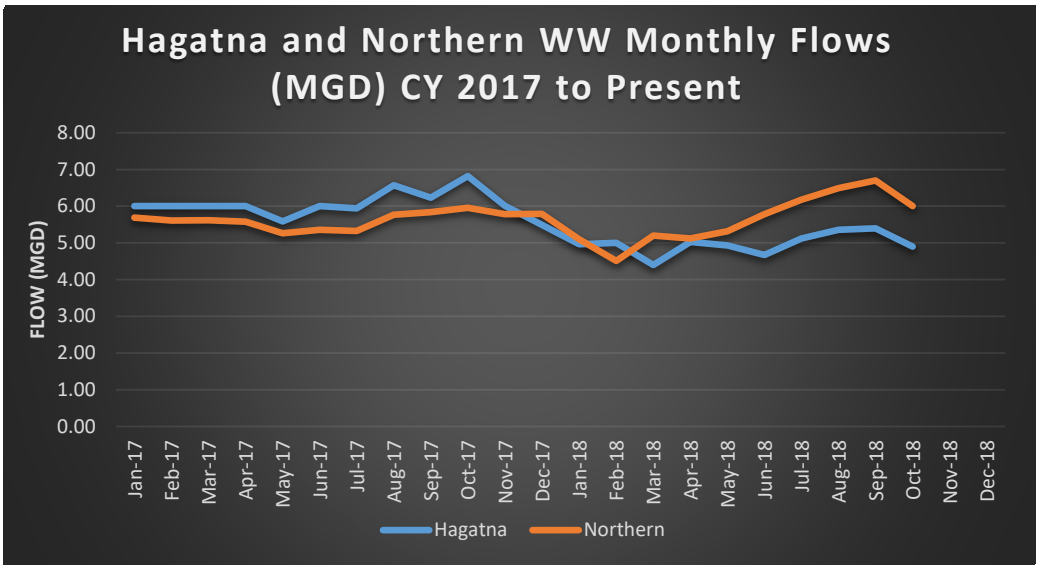
NO:	FACILITY	PUMP HORSEPOWER	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	Malojloj Line	125 / 50	3	3	100%	OP	A						
2	Geus	25	2	2	100%	OP	A						
3	Pigua	7.5	2	2	100%	N/A							
4	Toguan	25	2	2	100%	OP	A						
5	WBP-2	25	2	2	100%	OP	A						
6	WBP-1	5	2	2	100%	OP	A						
7	Malojloj Elevated	15	2	2	100%	OP	A						
	Total=7		**15**	**15**	**100%**								
pump availability =no of operational pumps/no of pumps*100%													

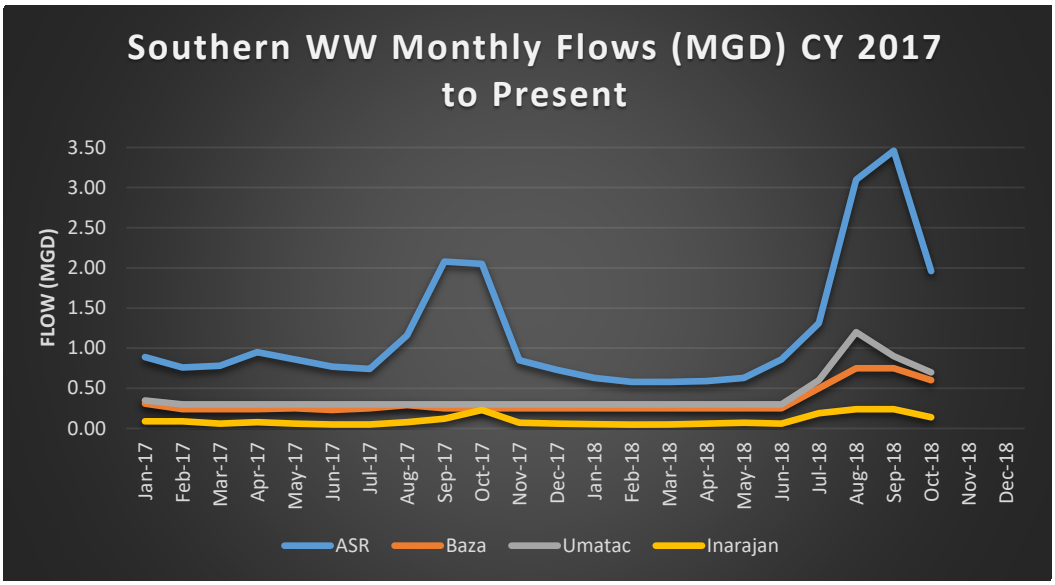
Wastewater Treatment Plant Average Monthy Flows Million Gallons Per Day

2017	Hagatna	Northern	ASR	Baza	Umatac	Inarajan
Jan-17	6.00	5.69	0.89	0.31	0.35	0.09
Feb-17	6.00	5.61	0.76	0.24	0.30	0.09
Mar-17	6.00	5.62	0.78	0.24	0.30	0.06
Apr-17	6.00	5.58	0.95	0.24	0.30	0.08
May-17	5.59	5.26	0.86	0.25	0.30	0.06
Jun-17	6.00	5.36	0.77	0.23	0.30	0.05
Jul-17	5.94	5.33	0.74	0.25	0.30	0.05
Aug-17	6.57	5.77	1.16	0.29	0.30	0.08
Sep-17	6.23	5.84	2.08	0.25	0.30	0.12
Oct-17	6.82	5.96	2.05	0.25	0.30	0.23
Nov-17	6.01	5.78	0.85	0.25	0.30	0.07
Dec-17	5.49	5.79	0.73	0.25	0.30	0.06
2017 Average MGD	**6.05**	**5.63**	**1.05**	**0.25**	**0.30**	**0.09**
2017 Total MGY	2,210	2,056	384	93	111	32

2018	Hagatna	Northern	ASR	Baza	Umatac	Inarajan
Jan-18	4.96	5.10	0.63	0.25	0.30	0.05
Feb-18	5.00	4.51	0.58	0.25	0.30	0.05
Mar-18	4.40	5.20	0.58	0.25	0.30	0.05
Apr-18	5.03	5.12	0.59	0.25	0.30	0.06
May-18	4.93	5.32	0.63	0.25	0.30	0.07
Jun-18	4.67	5.78	0.86	0.25	0.30	0.06
Jul-18	5.12	6.18	1.31	0.50	0.60	0.19
Aug-18	5.36	6.49	3.10	0.75	1.20	0.24
Sep-18	5.40	6.70	3.46	0.75	0.90	0.24
Oct-18	4.90	6.00	1.96	0.60	0.70	0.14
Nov-18						
Dec-18						
2018 Average MGD	**4.98**	**5.64**	**1.37**	**0.41**	**0.52**	**0.12**
2018 Total MGY	1,817	2,059	500	150	190	42

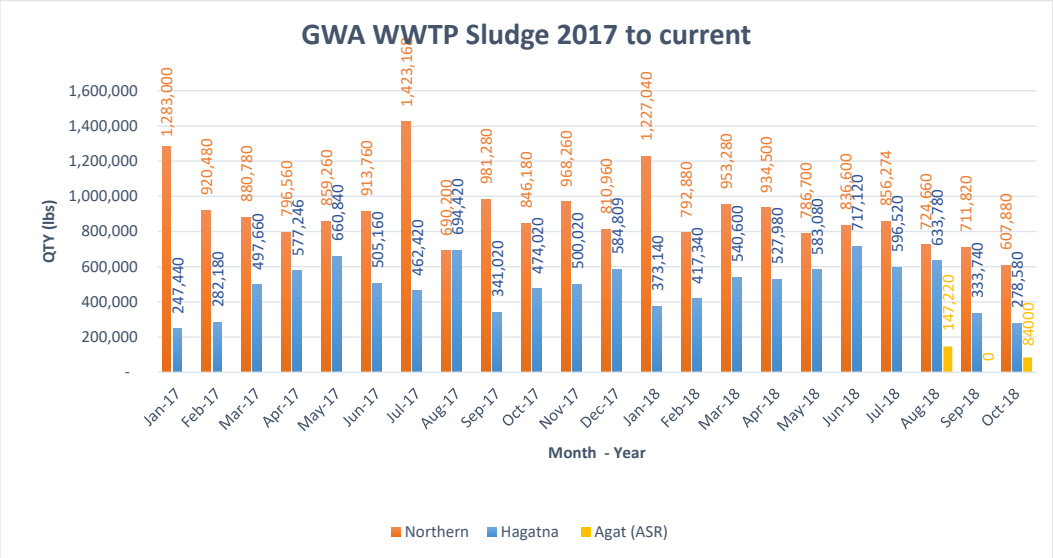
GWA WWT Flow Report 2013 to Present, prepared by kcog/df, 11/19/2018

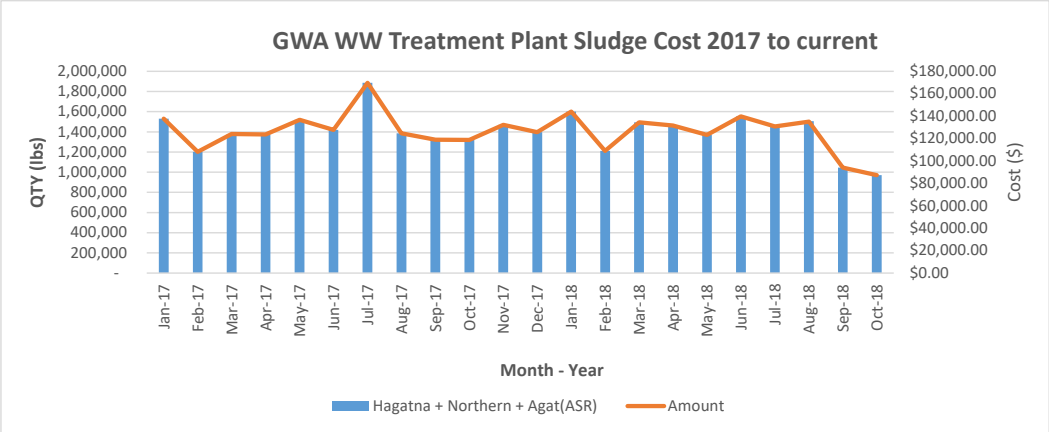

Hagatna and Northern WW Monthly Flows (MGD) CY 2017 to Present
FLOW (MGD)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Jan-17
Feb-17
Mar-17
Apr-17
May-17
Jun-17
Jul-17
Aug-17
Sep-17
Oct-17
Nov-17
Dec-17
Jan-18
Feb-18
Mar-18
Apr-18
May-18
Jun-18
Jul-18
Aug-18
Sep-18
Oct-18
Nov-18
Dec-18
Hagatna
Northern


Southern WW Monthly Flows (MGD) CY 2017 to Present
FLOW (MGD)
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
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
Sep-18
Oct-18
Nov-18
Dec-18
ASR
Baza
Umatac
Inarajan

	Hagatna		Northern		Agat (ASR)		Hagatna and Northern	
2017	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
Month- Yr	lbs	$	lbs	$	lbs	$	lbs	$
Jan-17	247,440	$22,269.60	1,283,000	$115,470.00			1,530,440	$137,739.60
Feb-17	282,180	$25,396.20	920,480	$82,843.20			1,202,660	$108,239.40
Mar-17	497,660	$44,789.40	880,780	$79,270.20			1,378,440	$124,059.60
Apr-17	577,246	$51,952.14	796,560	$71,690.40			1,373,806	$123,642.54
May-17	660,840	$59,475.60	859,260	$77,333.40			1,520,100	$136,809.00
Jun-17	505,160	$45,464.40	913,760	$82,238.40			1,418,920	$127,702.80
Jul-17	462,420	$41,617.80	1,423,168	$128,085.12			1,885,588	$169,702.92
Aug-17	694,420	$62,497.80	690,200	$62,118.00			1,384,620	$124,615.80
Sep-17	341,020	$30,691.80	981,280	$88,315.20			1,322,300	$119,007.00
Oct-17	474,020	$42,661.80	846,180	$76,156.20			1,320,200	$118,818.00
Nov-17	500,020	$45,001.80	968,260	$87,143.40			1,468,280	$132,145.20
Dec-17	584,809	$52,632.81	810,960	$72,986.40			1,395,769	$125,619.21
Grand Total	5,827,235	$524,451.15	11,373,888	$1,023,649.92			17201123	$1,548,101.07

	Hagatna WWTP		Northern		Agat (ASR)		Hagatna + Northern + Agat(ASR	
2018	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
Month- Yr	lbs	$	lbs	$	lbs	$	lbs	$
Jan-18	373,140	$33,582.60	1,227,040	$110,433.60			1,600,180	$144,016.20
Feb-18	417,340	$37,560.60	792,880	$71,359.20			1,210,220	$108,919.80
Mar-18	540,600	$48,654.00	953,280	$85,795.20			1,493,880	$134,449.20
Apr-18	527,980	$47,518.20	934,500	$84,105.00			1,462,480	$131,623.20
May-18	583,080	$52,477.20	786,700	$70,803.00			1,369,780	$123,280.20
Jun-18	717,120	$64,540.80	836,600	$75,294.00			1,553,720	$139,834.80
Jul-18	596,520	$53,686.80	856,274	$77,064.66			1,452,794	$130,751.46
Aug-18	633,780	$57,040.20	724,660	$65,219.40	147,220	$12,894.25	1,505,660	$135,153.85
Sep-18	333,740	$30,036.60	711,820	$64,063.80	0	$0.00	1,045,560	$94,100.40
Oct-18	278,580	$25,072.20	607,880	$54,709.20	84000	$7,560.00	970,460	$87,341.40
Nov-18		$0.00		$0.00		$0.00	-	$0.00
Dec-18		$0.00		$0.00		$0.00	-	$0.00
Grand Total	5,001,880	$450,169.20	8,431,634	$758,847.06	231,220	$20,454.25	13664734	$1,229,470.51


GWA WWTP Sludge 2017 to current
QTY (lbs)
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
-
1,283,000
247,440
920,480
282,180
880,780
497,660
796,560
577,246
859,260
660,840
913,760
505,160
1,423,160
462,420
680,200
694,420
981,280
341,020
846,180
474,020
968,260
500,020
810,960
584,809
1,227,040
373,140
792,880
417,340
953,280
540,600
934,500
527,980
786,700
583,080
836,600
717,120
856,274
596,520
724,660
633,780
147,220
711,820
333,740
0
607,880
278,580
84000
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
Sep-18
Oct-18
Month - Year
Northern
Hagatna
Agat (ASR)


GWA WW Treatment Plant Sludge Cost 2017 to current
QTY (lbs)
2,000,000
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
-
$180,000.00
$160,000.00
$140,000.00
$120,000.00
$100,000.00
$80,000.00
$60,000.00
$40,000.00
$20,000.00
$0.00
Cost ($)
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
Sep-18
Oct-18
Month - Year
Hagatna + Northern + Agat(ASR)
Amount

Guam Waterworks Authority	Date: 10/1/2018 Time:

GUAM WATERWORKS AUTHORITY

WASTEWATER FACILITIES REPORT

REVIEWS			
TOTAL PUMPS INSTALLED	169	OVERAL AVERAGE	90%
TOTAL PUMPS OPERATIONAL	151	% OF OPERATING PUMPS	89%
TOTAL PUMP STATIONS	76		

Northern District

NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	FUJITA	1	4	3	75%	OP	A	PUMP 2 UNDERGOING REPAIRS AT WASHLAND					
2	SOUTHERN LINK	1	4	3	75%	OP	A	PUMP 1 & 2 SECURED DUE TO VFD PROBLEM / PUMP 4 SECURED DUE TO CLOGGED SUCTION LINE					
3	ROUTE 16	1	4	3	75%	OP	OP	PUMP 2 SECURED DUE TO POSSIBLE MOISTURE IN POTHEAD AND/OR NEED FOR REWINDING SERVICES / PUMP3 SECURED DUE TO POSSIBLE DAMAGED CHECK VALVE					
4	YPAO	1	2	2	100%	OP	A						
5	YIGO	1	3	2	67%	OP	A	PUMP #3 PENDING INSTALLATION					
6	HARMON	2	2	2	100%	OP	M						
7	MACHECHE	2	2	2	100%	GPA	A						
8	LATTE DOUBLE TROUBLE	2	2	2	100%	GPA	A						
9	LATTE SUBMARINE	2	2	2	100%	GPA	A						
10	MACHANAO	2	2	2	100%	OP	M						
11	YPAOPAO ESTATES	1	3	3	100%	GPA	A						
12	PGD	2	2	2	100%	NO	A						
13	LATTE PLANTATION	2	2	2	100%	GPA	A						
14	PASEO DE ORO	2	2	2	100%	OP	A						
15	ASTUMBO #1	2	2	2	100%	OP	A						
16	ASTUMBO #2	2	2	2	100%	OP	A	P REMOVED DUE TO CRACKED IMPELLER /					
17	FEMA '96	2	2	2	100%	OP	A						
18	LATTE SUN RISE	2	2	2	100%		A						
19	HAFA ADAI	2	2	2	100%	NO	A						
20	PACIFIC LATTE	2	2	2	100%	OP	A						
21	SANTA ANA	2	2	2	100%		M						
22	ZERO DOWN	2	2	2	100%	NO							
	TOTAL = 22		52	48	92%								

pump availability =no of operational pumps/no of pumps*100%

Central District

NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	AGANA MAIN	1	4	4	100%	0P	A						
2	CHAOT	1	3	3	100%	OP	A						
3	MAMAJANAO	1	3	3	100%	MANUAL	A	Pump 1 and 3 standby					
4	BARRIGADA	1	2	2	100%	GPA	A						
5	BAYSIDE	1	1	1	100%	Op	A						
6	TAI MANGILAO	1	3	1	33%	GPA	A	PUMP # 3 REMOVED/ P1 secured		VFD issues Roger looking for parts			
7	MONGMONG/TOTO	2	2	2	100%	OP	A						

8	PAGO DOUBLE	1	3	2	67%	M	A	PUMP #1 IN NEED OF REPLACEMENT.		CIP WRITE UP COMPLETED & NOW UNDERGOING PROCESS FOR SIGNATURES			
9	MANGILAO	1	2	1	50%	GPA	A	P2 Removed					
10	PITI	1	2	1	50%	GPA	A	P1 Removed burnt					
11	ASAN	1	2	2	100%	GPA	A						
12	SINAJANA	2	2	2	100%	GPA	A						
13	DAIRY ROAD	1	2	2	100%	OP	A						
14	FLORA GARDENS	2	2	2	100%	INOP	A						
15	ORDOT	2	2	2	100%	INOP	A						
16	CHALAN PAGO #5	2	2	1	50%	INOP	A	P1 removed					
17	COMMERCIAL PORT	1	3	1	33%	OP	A	P1 / P2 secured not running on hand or auto					
18	CHALAN PAGO #3	2	2	2	100%	OP	A						
19	CABRAS ISLAND	1	2	1	50%	PORTABLE	M	PUMP #1 REMOVED DUE TO BURNT MOTOR		MOTOR BEYOND ECONOMICAL REPAIR		ORDERING OF NEW PUMP IN PROCESS	
20	ALUPANG COVE	1	2	2	100%	OP	A						
21	MAITE EJECTOR	1	2	2	100%	GPA	A						
22	TOTO GARDENS	2	2	2	100%	NONE	A						
23	NAMO	2	1	1	100%	NONE	NONE						
24	CASIMERO	2	2	2	100%	NONE	NONE						
25	LEYANG	2	2	2	100%	OP		P1 standby not turning off on auto					
26	SAGAN BONITA 1	2	2	2	100%	OP							
27	SAGAN BONITA 2	2	2	1	50%	OP	A	P2 secured not turning on auto or manual					
28	FADIAN	2	2	2	100%	OP	A						
29	MH #19	1	1	1	100%	OP	A						
30	VETERANS	1	1	1	100%								
31	DERO ROAD	2	2	2	100%	OP							
	Total=29		**65**	**55**	**85%**								
pump availability =no of operational pumps/no of pumps*100%														

Southern District

NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	GAAN #1	1	4	4	100%	Op	A						
2	TIPALEO	1	3	3	100%	Op	M	OFF LINE - TREATMENT PLANT					
3	PUMP STATION #13	1	2	2	100%	GPA	A						
4	PUMP STATION #15	2	2	1	50%	GPA	A	Pending installation of pump					
5	PUMP STATION #12	2	2	2	100%	GPA	A						
6	PUMP STATION #11	1	2	1	50%	GPA	A	DAMAGED VALVE BOX DRAINAGE LINE / WATER LEAKING INTO WET PIT / PUMP REMOVED AND IS AT MAINT. SHOP DUE TO LOW MEGGER					
7	PUMP STATION #14	2	2	2	100%	GPA	A						
8	PUMP STATION #16	2	2	1	50%	GPA	A	Pump #2 removed / BEING UTILIZED AT STATION 13					
9	PUMP STATION #17	2	2	2	100%	GPA	A						
10	PUMP STATION #18	2	2	1	50%	GPA	A	PUMP 2 PENDING INSTALLATION					
11	INARAJAN MAIN	1	2	2	100%	OP	A						
12	INARAJAN LIFT	1	2	2	100%	OP	M						

13	TALAFOFO	1	2	2	100%	OP	A	PUMP ONLINE AS OF 9/29/17						
14	PAGACHAO	2	2	2	100%	PORTABLE	A							
15	CHALIGAN	2	2	2	100%	Op	A	CONTROL PANEL IN NEED OF REPAIRS / PUMP OPERATING ON HIGH AND LOW LEVEL FLOATS		UST REPAIRS REQUIRED. **OR29652** CREATED 12/29/16 PENDING RELEASE TO PO				
16	EJECTOR #2	2	2	2	100%	no	ATS							
17	EJECTOR #3	2	2	2	100%	no	ATS							
18	EJECTOR #4	2	2	2	100%	OP	M							
19	EJECTOR #5	2	2	2	100%	PORTABLE	M							
20	EJECTOR #6	2	2	2	100%	OP	M							
21	EJECTOR #7	2	2	2	100%	OP	M							
22	NORTH REYES	2	2	2	100%	OP	M							
23	LEYON #3	2	2	2	100%	OP	A	Pump #1 secured due to VFD defective		PUMP 2 VFD TRANSDUCER DEFECTIVE				
24	LEYON #4	2	2	2	100%	OP	A			TRANSDUCER DEFECTIVE				
25	MTL PUMP STATION	1	1	1	100%	OP	ATS							
	Total=25		**52**	**48**	**92%**									
pump availability =no of operational pumps/no of pumps*100%														

GUAM WATERWORKS AUTHORITY

WASTEWATER COLLECTION REPORT

MONTHLY REPORT

October 2018



CCTV INSPECTIONS AND SEWER CLEANING
OCTOBER 2018

Oct. 01 - Oct. 07	Team #1	Team #2	Vendor	Total
Feet Scheduled	6,535			6,535
Feet Completed	9,622			
	147.24%			147.24%

Oct. 08 – Oct. 14	Team #1	Team #2	Vendor	Total
Feet Scheduled	6,535			6,535
Feet Completed	15,710			15,710
	240%			240%

Oct. 15 – Oct. 21	Team #1	Team #2	Vendor	Total
Feet Scheduled	6,535			6,535
Feet Completed	22,441			22,441
	343%			343%

Oct. 22 – Oct. 28	Team #1	Team #2	Vendor	Total
Feet Scheduled	6,535			6,535
Feet Completed	1,718			1,718
	26%			26%

Oct. 29 – Oct. 30	Team #1	Team #2	Vendor	Total
Feet Scheduled	181			181
Feet Completed	181	0		181
	100%	%		100%

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	EOY
SEWER CLEANING	2.86	6.09	2.81	6.50	6.49	4.29	4.94	3.62	3.81	9.4			

TOTAL FEET SCHEDULED	26,400
TOTAL FEET COMPLETED	49,672
TOTAL MILES FOR THE MONTH	9.4
TOTAL MILES SCHEDULED	5.0
PERCENTAGE COMPLETED	188%

PUMPING STATION TROUBLE CALLS 2018

Oct. 01 - 07	CREATED	COMPLETED	PENDING
NORTHERN	1	1	0
CENTRAL	4	4	0
SOUTHERN	2	2	0
TOTAL	7	7	0

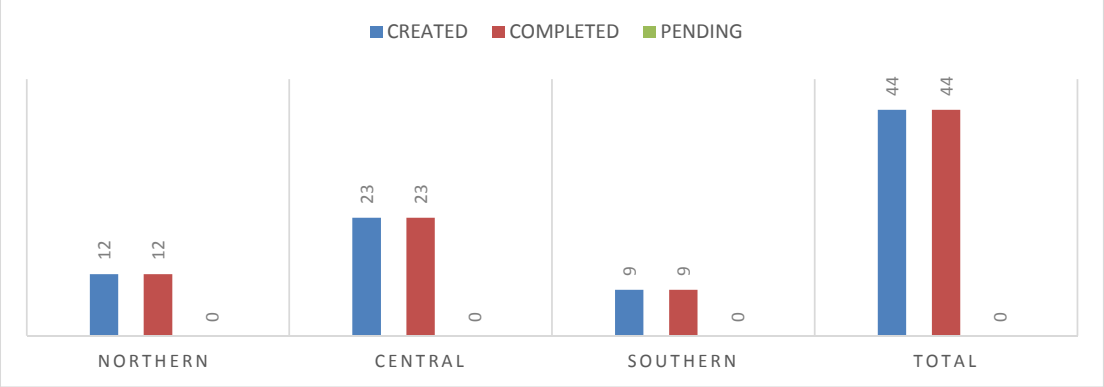
Oct. 08 – 14	CREATED	COMPLETED	PENDING
NORTHERN	3	3	0
CENTRAL	3	3	0
SOUTHERN	1	1	0
TOTAL	7	7	0

Oct. 15 – 21	CREATED	COMPLETED	PENDING
NORTHERN	4	4	0
CENTRAL	7	7	0
SOUTHERN	3	3	0
TOTAL	14	14	0

Oct. 22 – 28	CREATED	COMPLETED	PENDING
NORTHERN	4	4	0
CENTRAL	8	8	0
SOUTHERN	3	3	0
TOTAL	15	15	0

Oct. 29 – 30	CREATED	COMPLETED	PENDING
NORTHERN	0	0	0
CENTRAL	1	1	0
SOUTHERN	0	0	0
TOTAL	1	1	0

TOTAL	CREATED	COMPLETED	PENDING
NORTHERN	12	12	0
CENTRAL	23	23	0
SOUTHERN	9	9	0
TOTAL	44	44	0



MAINTENANCE PREVENTIVE AND CORRECTIVE CALL OUTS

Oct. 01 - 07	PREVENTIVE	CORRECTIVE
NORTHERN	Shortage of manpower	3
CENTRAL	Shortage of manpower	3
SOUTHERN	Shortage of manpower	4
TOTAL	Shortage of manpower	10

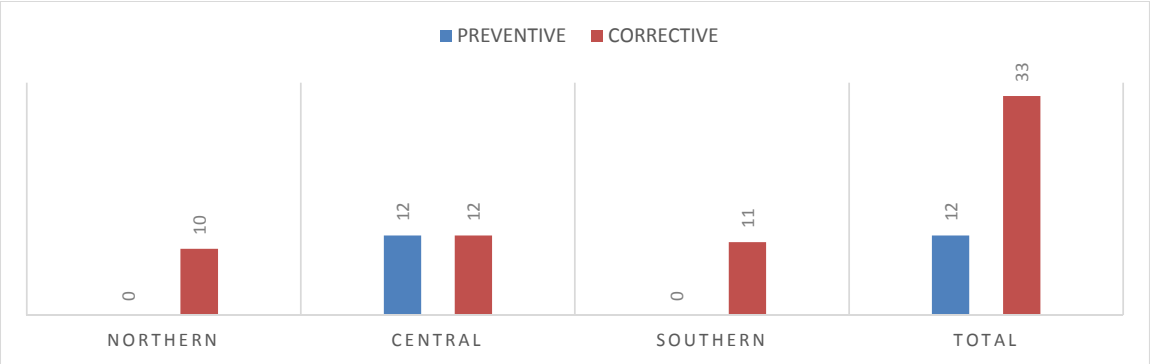
Oct. 08 – 14	PREVENTIVE	CORRECTIVE
NORTHERN	Shortage of manpower	4
CENTRAL	Shortage of manpower	4
SOUTHERN	Shortage of manpower	1
TOTAL	Shortage of manpower	9

Oct. 15 – 21	PREVENTIVE	CORRECTIVE
NORTHERN	Shortage of manpower	3
CENTRAL	Shortage of manpower	3
SOUTHERN	Shortage of manpower	4
TOTAL	Shortage of manpower	10

Oct. 22 – 28	PREVENTIVE	CORRECTIVE
NORTHERN	Typhoon Yutu	Typhoon Yutu
CENTRAL	12	2
SOUTHERN	Typhoon Yutu	1
TOTAL	12	3

Oct. 29 – 30	PREVENTIVE	CORRECTIVE
NORTHERN	Shortage of manpower	0
CENTRAL	Shortage of manpower	0
SOUTHERN	Shortage of manpower	1
TOTAL		1

MONTHLY TOTAL	PREVENTIVE	CORRECTIVE
NORTHERN	0	10
CENTRAL	12	12
SOUTHERN	0	11
TOTAL	12	33



BASE PAY VS OVERTIME

As of Oct, 2018	BASE PAY	OVERTIME	OVERTIME %
PUMPING STATION	$60,953.60	$23,726.63	39%
MAINTENANCE	$36,008.00	$2,425.86	7%
COURT ORDER UNIT	$29,643.20	$2,411.01	8%
TOTALS	$126,604.80	$28,563.50	22.5%

