



GUAM WATERWORKS AUTHORITY

Good Water Always

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November 5, 2007

Pursuant to further compliance to the STIPULATED ORDER FOR PRELIMINARY RELIEF; CIVIL CASE No. 02-00035, as amended and filed on October 19, 2006, The Guam Waterworks Authority herewith presents the report required on or following this date as ordered, adjudged and decreed items numbered: #49 Compliance Progress Report No. 14.

CERTIFICATION STATEMENT

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that this document and its attachments were prepared either by me personally or under my direction or supervision in a manner designed to ensure that qualified and knowledgeable personnel properly gathered and presented the information contained therein. I further certify, based on my personal knowledge or on my inquiry of those individuals immediately responsible for obtaining the information, that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing and willful submission of a materially false statement.

PAUL J. KEMP, M. S.

Assistant General Manager for Compliance and Safety

November 5, 2007

Date

A copy of the STIPULATED ORDER FOR PRELIMINARY RELIEF; CIVIL CASE No. 02-00035 as amended and filed on October 19, 2006, is posted for public review on the GWA web site;

< <http://www.guamwaterworks.org/> >.

**NOTE:- These reports are cumulative so that this most recent report incorporates the contents of preceding editions.
The Executive summary of the compliance performance is on pages 41-43 of this report.**

QUARTERLY COMPLIANCE PROGRESS REPORT

No. 14

1. The **STIPULATED ORDER FOR PRELIMINARY RELIEF; CIVIL CASE No. 02-00035 (SO)** contains 14 Sections with a total of 74 descriptive subsections or “Paragraphs” of which the first 48 specify **deliverable** actions requiring documentation and the remaining 26 define administrative procedures for open communication and amendment and for penalties and remedies for failure to comply with the scheduled execution of the “deliverables”.

2. Submissions are made to the US EPA Region 9, with copies sent to the CCU, GEPA, Guam AG, Guam PUC and Guam OPA. Copies of this report are public information and the current edition will be posted on the GWA web-site:
< <http://www.guamwaterworks.org/> >.

3. Following is a summary of the status of the SO deliverable items by Section and Paragraph Number. **Changes** from the preceding report are **highlighted**. [The legend of Critical Dates format is at the end of the table.] An amendment to the Stipulated order has been negotiated between the CCU, GWA, USEPA, GEPA and USDOJ and has been filed with the US District and the Guam Courts, which affects compliance dates and adds some additional tasks.

Paragraph No.	Title	Status	Critical Dates
Section I	Submittals by Defendants		
01	SO Compliance Monitor	Position Vacated – by order of Guam Civil Service Commission, 04/29/2005. Refilled the position permanently by CCU and GWA HR & GM on May 1, 2006: Assistant General Manager for Compliance and Safety; is Paul J. Kemp, M. S., formerly C&D Level IV ODRC. This was made possible when GEPA designated GWA Northern and Central WW collection systems to be Medium sized and that a sufficient number of GWA personnel have attained Level III Certification to fill the needed number of ODRC positions needed.	06/15/2003 03/21/2006
02	EPA Approval of Plans and Other Submittals	Continuous. [Extremely slow.]	Continuous
Section II	Management and Organizational Structure of GWA		
03	SO General Manager	Interim General Manager, 01/01/2003 General Manager 12/01/2003 -- David E. R. Craddick, Resigned 04/11/2007. Replacement recruitment is underway, first announcement was made on April 21, 2007. Recruitment is intended to be done in 90 days. Getting qualified applicants has proven difficult. GWA is in the process of contracting a Recruitment Agency to fill this position.	09/03/2003 04/21/2007 07/10/2007

Paragraph No.	Title	Status	Critical Dates
04	SO Chief Engineer	Recruitment efforts gave GWA a Stipulated Order Chief Engineer. Mr. Don Antrobus is an engineer with the United States Public Health Service (USPHS) and is being detailed to the GWA SO Chief Engineer position with the help of the United States Environmental Protection Agency (USEPA). Engineer Don Antrobus is located at GWA main offices. He joined GWA on May 25, 2005. The need for additional qualified engineers at GWA is also being added to the work to be done by the contracted recruitment agency.	05/25/2005
05	SO Financial Officers		
05 (A)	Chief Financial Officer	Re-filled 07/16/2007 by recruitment for a GWA CFO, Greg P. Cruz,	07/16/2007
05 (B)	Assistant Chief Financial Officer	Cora Montellano will return to GPA and will be replaced by Joe Claveria, CPA. as GWA ACFO who's start date is 11/13/2007.	11/30/2006 11/12/2007
06	General Manager's Authority	CCU Resolution passed 01/27/2004	11/09/2003
07	Conflict of Interest Provision	Continuous	Continuous
08	GWA Personnel.		
08 (A)	Certification of Operators in Direct Responsible Charge (DRC Operators).	All GWA personnel notified of need for certification of DRC operators as of 06/15/2003 and that they must obtain certification by 12/02/2003 . Initial listing of DRC Operators submitted to EPA on 12/30/2003 . EPA Comments received on 05/20/2004, requiring need for DRC operators for each shift per Guam Environmental Protection Agency (GEPA). GWA response made on 06/19/2004 . In response to EPA comments, GWA began recruitment for Stipulated Order DRC Operators. GWA was subsequently ordered to halt the recruitment by the Guam Civil Service Commission. Following review by the CCU, GWA went ahead with developing Position Descriptions for the SO DRC operator positions. GWA reopened recruitment for 3 Grade III Wastewater Treatment Operators, 3 Grade IV Wastewater Collection System Operators and 3 Grade IV Drinking Water Distribution System Operators – recruitment was successful – all requisite positions were filled by 04/29/2005 . In order to meet the compliance date, it was necessary to reassign the Collection and	12/02/2003 01/28/2005 04/29/2005

Paragraph No.	Title	Status	Critical Dates																																										
08 (A) (Continued)	Certification of Operators in Direct Responsible Charge (DRC Operators).	<p>Distribution manager and the Compliance Monitor to DRC duty, both being certified at Level IV in both Water Distribution and Wastewater Collection. Level IV water distributions operators have been recruited from the mainland and C&D Manager and CM are now only serving single duty as Level IV WW collection DRC operators.</p> <p>In April 2005, GEPA redesignated Northern and Central Guam WW collection systems as "medium sized" which means that the DRC WW collections operators will only need Level III certification. GWA had enough Level III certified WW collection personnel to fill all the needed DRC operator positions. Filling these positions is conflict with the CSC designations for these positions. Resolution of this conflict came from the decision that the CCU was the responsible agency for certified personnel to serve as ODRC's.</p> <p>GWA personnel continue to study for certification and a few actually take advantage of GWA training. We now have an additional training support resource in our PMC contractor, Veolia Water who are preparing skill training for GWA Wastewater Treatment and Collection Personnel. Training for the September 27, 2007 exam began on August 13, 2007. Results for participants in the Operator Certification Examinations given by Guam EPA are pending.</p> <p>Notable is the completion of the desired compliment of (5) Certified Operators at Ugum Surface Water Treatment Facility well in advance of the compliance date.</p> <p>DRC Positions filled to meet the requirements of this paragraph are:</p> <table border="1" data-bbox="730 1089 1745 1479"> <thead> <tr> <th><u>Position</u></th> <th><u>Min. Cert. Level</u></th> <th><u>Actual Cert. Level</u></th> <th><u>Min Required No.</u></th> <th><u>Desired No*</u></th> <th><u>Actual No.</u></th> </tr> </thead> <tbody> <tr> <td>WW Trt (Baza)</td> <td>III</td> <td>(#)II</td> <td></td> <td></td> <td>1</td> </tr> <tr> <td>WW Trt All island</td> <td></td> <td>IV</td> <td>3</td> <td>5</td> <td>3</td> </tr> <tr> <td rowspan="2">WW Collection</td> <td rowspan="2">III</td> <td>III</td> <td>3</td> <td>5</td> <td>4</td> </tr> <tr> <td>IV</td> <td></td> <td></td> <td>1</td> </tr> <tr> <td rowspan="3">Surface Water Treatment</td> <td rowspan="3">III</td> <td>IV</td> <td></td> <td></td> <td>1</td> </tr> <tr> <td>III</td> <td>3</td> <td>5</td> <td>4</td> </tr> <tr> <td>II</td> <td>2</td> <td>3</td> <td>2</td> </tr> </tbody> </table>	<u>Position</u>	<u>Min. Cert. Level</u>	<u>Actual Cert. Level</u>	<u>Min Required No.</u>	<u>Desired No*</u>	<u>Actual No.</u>	WW Trt (Baza)	III	(#)II			1	WW Trt All island		IV	3	5	3	WW Collection	III	III	3	5	4	IV			1	Surface Water Treatment	III	IV			1	III	3	5	4	II	2	3	2	<p>12/02/2003</p> <p>01/28/2005</p> <p>04/29/2005</p>
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08 (B)	Engineering Support	GWA has hired a Senior Level Water Engineer [Tom Cruz 08/07/2006], and a Senior Level Wastewater Engineer [Julie Shane 10/12/2006] and has borrowed from GPA a Senior Level Electrical Engineer [Barbara Cruz 08/21/2006]. These engineers all meet the special requirements set forth in Paragraph 08 (B). The need for additional qualified engineers at GWA is also being added to the work to be done by the contracted recruitment agency.						01/31/2007																		
08 (C)	Senior Wastewater Operator or GIS/Land Information System Manager	The GIS/Land Information System Manager has been taken by Rodney Toves on October 01, 2006 . Rodney was instrumental in the development of the GWA GIS database and mapping project in the Water Resources Master Plan (See Paragraph 10 below). GWA continues to pursue the training of or recruitment of at least one additional Senior Wastewater Treatment Operator.						01/01/2007																		
09	GWA SO Reorganization	Draft Plan submitted to EPA on 09/05/2003. GWA/EPA ad hoc Conference call held 02/27/2004. EPA review and comments sent to GWA on 04/06/2004. GWA presents plan with response to EPA comments to CCU on 04/27/2004. GWA submits new draft 05/18/2004. CCU approved Reorganization Plan on 05/25/2004. GWA updated response to EPA on 06/08/2004.						03/25/2005 06/24/2005																		

Paragraph No.	Title	Status	Critical Dates
09	GWA SO Reorganization	<p>Reorganization moves toward alignment with AWWA Best Practices and went into full implementation as of 10/01/2004:</p> <p style="text-align: center;"><u>Operations</u></p> <p>“Production and Treatment” [P/T], (Potable Water Treatment, Deepwell Production & Disinfection and Wastewater Treatment) [Mark G. Miler, Assistant General Manager]</p> <p>“Collection and Distribution” [C/D] Potable Water distribution – Wastewater Collection” [Anthony P. Chargualaf, Assistant General Manager].</p> <p style="text-align: center;"><u>Internal and customer support services</u></p> <p style="text-align: center;"><u>Finance Unit</u> [Greg P. Cruz, Chief Financial Officer]</p> <p style="text-align: center;"><u>Administration and Consolidation Services Unit</u> [Joaquin “Danny” Santos, Assistant General Manager]</p> <p style="text-align: center;"><u>Engineering Unit</u> Don Antrobus, Chief Engineer</p> <p style="text-align: center;"><u>Human Resources Unit</u> Lola Elaine Wusstig Cruz, Program Manager</p> <p style="text-align: center;"><u>Compliance and Safety Unit</u> Paul J. Kemp, Assistant General Manager</p> <p style="text-align: center;"><u>GWA Certified Laboratory</u> Carmen Sian-Denton, Laboratory Administrator</p> <p>Temporary and permanent assignments within these divisions have been made. Revisions will continue as GWA evolves under reorganization and under changes in certification status of staff.</p>	<p>03/25/2005</p> <p>06/24/2005</p>

Paragraph No.	Title	Status	Critical Dates
09 (Continued)	GWA SO Reorganization (Continued)	<p>DRC operators were in place by April 29, 2005, some recruited from off island. All other critical positions identified in the reorganization were recruited, hired and in place by June 24, 2005. Results of GEPA certification examinations of September 27, 2007 pending.</p> <p>Technical Training targeted at helping GWA employees to gain new and better skills and higher certification levels is offered to GWA personnel on a voluntary basis. GED classes are also offered for GWA personnel in support of enhanced competence and internal mobility within GWA. In addition, training programs are being planned and implemented by the GWA Performance Management Contractor, Veolia Water who's focus is on Wastewater Treatment and Collection System personnel. The training programs are discussed in more detail below under Paragraphs 46 and 47.</p> <p>An updated, clarification report and organizational chart of the status and objectives of the GWA reorganization was submitted to the USEPA on March 25, 2005.</p> <p>Under the CCU, GWA and GPA have joined in an in depth study of Certified Technical Positions (CTP) and appropriate compensation. Assisted by this, GWA continues to develop modifications to the Organizational Structure of the Utility, and is preparing a report for review and approval of the CCU, most notably in Engineering support as noted above in Paragraph 08 (B). The Certified Technical Positions study was completed, and legislative support for the CCU's management of GWA and GEPA CTP positions based on the CTP study was obtained. The adoption of the program with a plan to gradually move the compensation of personnel in these positions up to the national average was executed by the CCU effective October 01, 2007.</p> <p>GWA is also expanding its field service staff as well as instituting a recruitment oriented Nationally Accredited Apprenticeship program. An In Service Training program is in planning. This is intended to provide GWA with a stable well trained employee base and a Staffing Pattern which will support the progressive functionality of this utility.</p>	

Paragraph No.	Title	Status	Critical Dates
Section III Operations at GWA			
10	Water Resources Master Plan (WRMP 2007)	<p>An RFQ was approved by EPA on 10/10/2003. Candidate list for screening by EPA submitted on 01/08/2004. Approval received for all submittals 01/22/2004. Evaluation Committee met and selected the most qualified candidate. EPA was notified of successful contract negotiated and signed with Brown and Caldwell on 05/05/2004 as the official SO. Paragraph 10 "Commencement Date"</p> <p>Phase I Kickoff meeting held on Guam on June 1, 2004. Sub-Task Planning, Electrical (jointly with GPA) and General System Assessments, Public Outreach for Master Plan Content and GIS Project started. Master Plan Project Web Site was developed for project team use with password access < http://www.gwamasterplan.org/ > and public monitoring support, input access and project news will be posted on the Guam Waterworks Authority public web site at: < http://www.guamwaterworks.org/ > (Q. v.). GWA wells.</p> <p>The preliminary presentation round of Public input meetings began in August and were completed by mid-November. <u>This was the first round of public information meetings.</u> Feedback received has been used in the development of MP content. Public meetings were held in May and June, 2006 with a draft plan ready in to update the community on the status of the Water Resources Master Plan (WRMP) and get public input.</p> <p style="text-align: center;">The complete final WRMP can be viewed on The GWA website:- http://www.guamwaterworks.org/ > (q. v.).</p> <p>Copies were also distributed to various government agencies and mayor's offices for public viewing. An all island presentation/discussion meeting was held May 2, 2006 at the Dededo Community Center, at 6:30 PM. Additional village meetings will also be held when requested.</p> <p>Phase II official NTP was issued 01/12/2005. Phase II Kickoff meeting and planning/training sessions were held on Guam on October 25-29,</p>	<p>10/31/2006</p> <p>01/31/2007</p>

Paragraph No.	Title	Status	Critical Dates
10 (Continued)	Water Resources Master Plan (WRMP 2007) (Continued)	<p>2004. They included Water Resources Master Plan Consultants, Guam Waterworks Authority, Guam Environmental Protection Agency and Guam Water and Environmental Resources Institute (WERI at UOG).</p> <p>Major improvements to the operation of GWA wells have been accomplished by WRMP power assessment and concerted partnership efforts by GWA and GPA to optimize the quality of power supplied to Stakeholder interviews by WRMP Consultant and GWA also begun on October 28, 2004. Stakeholder and focus group interview have been completed. Draft stakeholder report was reviewed by GWA and further activities have been planned. Follow up on Community Outreach activities have include public opinion surveys by telephone. Information gathered by these activities is being used to formulate a GWA long term outreach program.</p> <p>WRMP Grant PR #3 for Phase II work was and approved 08/22/2005 with GWA reimbursement from EPA via GEPA shortly thereafter. WRMP Quarterly Progress Reports through No. 7 have been submitted. (USEPA Support Grant Condition. 20).</p> <p><u>Master plan milestone schedule:</u></p> <p>-Complete Leak Detection Study 11/01/2004 (GWA provided interim report – project completed on Schedule – Revised Study completed 09/30/2005)</p> <p>-Complete. Est. Water Budget 12/31/2004 (revised 1/15/2005) Draft report submitted to GEPA WERI and EPA for review. Follow up discussion held during Special</p> <p>WRMP conference call on 01/25/2005. Final report is completed in hard copy and being prepared for electronic transmission.</p> <p>-Develop GIS Phase I 01/30/2005 (revised 01/28/05) GIS development ongoing; (*) while the island has been digitized at this time, it is limited to larger water and wastewater lines, and the smaller lines 4” diameter or less continue to be mapped into the database. This task will continue indefinitely as drawings and maps are not available for all lines, and field investigation will be used to true up the model data.</p>	<p>10/31/2006</p> <p>01/31/2007</p>

Paragraph No.	Title	Status	Critical Dates
10 (Continued)	Water Resources Master Plan (WRMP) (Continued)	<p>-Hydrological. Analysis/Model 05/05/2005 Modeling software has been installed at GWA, and staff introduced to its operation. Initial data for preliminary modeling used data input for the Southern part of the island (EPA fine levied for being incomplete, \$13K). Most of the island has now been modeled, but further work to verify the information continues. (See preceding sentence above (*))</p> <p>-Draft Master Plan 10/27/2005 (EPA Fine levied \$20K) (amended 10/31/2006)</p> <p>-Develop. GIS Phase II 10/27/2005 -Well Rehab Assessment 03/01/2005 -Final Master Plan 01/25/2006 (EPA Fine levied \$35K)</p> <p>-Financial Project Planning Report 08/13/2006 A complete GWA system assessment has been done, and the database is now in use. Assessment includes GWA above ground assets and useful life evaluation. The assessment will be used to begin designing a failure prevention renewal program. These data will also support GWA's efforts to obtain funding for this program, and other needed improvements throughout the system to improve service to and reliability for our customers as well as meet requirements of the Stipulated Order.</p> <p>A joint GWA/GPA Operations and Engineering electrical power management workshop was conducted by the WRMP consultants on August 24, 2005, in the GPA Conference Room.</p> <p>Rate Structure Assessment and benchmarking was conducted by Grant Hoag, January 12-19, 2006 and was continued May 22-25, 2006. Review by the CCU continues in order to prepare a viable financial plan. Once a financial plan has been worked out to the satisfaction of the CCU, GWA and Brown & Caldwell; GWA and the CCU will give public notice 90 days prior to submitting it to the PUC for their review and approval. In support of this process, Asset Management Training was completed by Dale Olson, January 23-February 3, 2006.</p>	10/31/2006 01/31/2007

Paragraph No.	Title	Status	Critical Dates
10 (Continued)	Water Resources Master Plan (WRMP) (Continued)	<p>The final edition of the WRMP was distributed beginning 10/31/2006 and input solicited from the public and all stakeholders on the island as well as EPA. Public meetings were held and all comments have been collected and compiled and are being addressed in preparation for the CCU's evaluation and adoption of a final version. The CCU adopted the WRMP on January 31, 2007 and crafted a resolution describing the use and updating of it, which was finalized on March 13, 2007.</p> <p>Further updating of the WRMP including responses to comments on the final document have been started using a preamble to and a new appendix in Volume I of the WRMP 2007.</p> <p>The current related in-progress component called for in the WRMP 2007 is the analysis of and preparation of a System Development Charge (SDC) for submittal before the Guam Public Utilities Commission (PUC).</p>	10/31/2006 01/31/2007
11	Interim Disinfection Program	<p>Delays in completion of SO Paragraph 11 Interim Disinfection Program not included under the EPA grant project resulted in 03/08/2004 penalty demand of \$11,000 see Paragraphs 53 and 55 below. Revisions by GWA contract engineer (Bills Engineering) discussed and submitted 03/04/2004 Evaluation by GWA staff of all wells and chlorination systems has been made. Further revision submitted on 04/14/2004.</p> <p>This paragraph has been coupled with the EPA Grant Project to rehabilitate essential chlorination systems. The net impact is that all water sources will be disinfected. This paragraph is also linked to the (following) Interim Disinfection Monitoring Program, SO Paragraph 12.</p> <p>Grant project has been revised to include design for all GWA wells and revision was approved by GWA contract engineer (Bills Engineering), GEPA and EPA. Revised project was put out for bid by GWA engineering staff and a consultant has been selected. Contract has been signed and notice to proceed has been given. Some adjustments to the scope of work and cost schedule remain and final review by GWA Chief Engineer, Don Antrobus is complete. Construction was expected to be completed</p>	12/01/2004 03/25/2005 06/24/2004

Paragraph No.	Title	Status	Critical Dates
11 (Continued)	Interim Disinfection Program (Continued)	<p>within the original project time schedule.</p> <p>Monitoring of well disinfection performance has been revised; with installation of proper sample points on wells that do not already have proper sampling taps in progress. Full completion schedule has been prepared under the Interim Disinfection Program composite narrative as Appendix E and is in review by GWA on request by USEPA and GEPA. Completion of disinfection upgrade in GWA funded sites will be done by GWA Disinfection Section. Completion dates for critical well were worked out with GEPA and USEPA for 06/03/2005. This is a priority public health concern project.</p> <p>Final narrative on Interim Disinfection Program (SO 11) and Interim Disinfection Monitoring Program (SO 12) in a single document has been completed with only minor (but important) revisions and clarifications on 12/01/2005. These revisions were mainly to Appendix G (Well Monitoring Report) and Appendix K (Distribution System Problem Area Findings and Actions). Chlorinator installation on all wells will provide total system compliance with the minimum disinfectant residual of 0.2 mg/L in all samples by 06/24/2005.</p> <p>GWA has installed new chlorine scales at all disinfection sites and upgraded 32 of 97 active locations to auto switchover systems. A contract has been bid and awarded to complete the upgrade, pending notice to proceed and a final scope of work. Please see Paragraph 12(C), Below.</p> <p>GWA has contracted with the local chlorine supplier to maintain a minimum inventory of 200 full cylinders on island at all times.</p>	12/01/2004 03/25/2005 06/24/2004
12	Public Water Systems' Chlorine Program		
12 (A)	Interim Disinfection Residual Level Monitoring Program	Interim Disinfection Residual Monitoring has been written with input from EPA, GEPA and GWA Chief Engineer and is in process as approved: <ul style="list-style-type: none"> ◇ Distribution system are sampled from 90 selected locations bi-weekly. ◇ All disinfected wells are sampled daily. ◇ High risk wells are sampled twice daily. 	12/01/2004 03/25/2005 06/24/2004

Paragraph No.	Title	Status	Critical Dates
12 (A) (Continued)	Interim Disinfection Residual Level Monitoring Program (Continued)	<p>Further revision submitted to EPA on 04/14/2004:- <u>Specific actions to protect public health</u> have been defined and are also in progress, which include:-</p> <ul style="list-style-type: none"> ◇ Adjustment of disinfectant application rates. ◇ Microbiological monitoring of the distribution system simultaneously with disinfection monitoring. ◇ Flushing of water lines where disinfection samples find low levels of disinfectant residual (amounts < 0.2 mg/L). ◇ Tracer studies to determine water flow directions. ◇ Installation of dedicated water sample taps throughout the distribution system and for all wells and tanks. <p>Final narrative on Interim Disinfection Program (SO 11) and Interim Disinfection Monitoring Program (SO 12) in a single document has been completed with only minor (but important) revisions and clarifications on 12/01/2005. These revisions were mainly to Appendix G (Well Monitoring Report) and Appendix K (Distribution System Problem Area Findings and Actions). Supplemental microbiological sample points, to be used if disinfection drops below 0.2 mg/L in distribution samples or if disinfection feed fails at any chlorination site, were completed and submitted on 03/25/2005.</p> <p>A fine of \$1,000 was levied for improper record keeping and failure to follow the sampling procedures properly.</p>	12/01/2004 03/25/2005 06/24/2004
12 (B)	Chlorine Supply	<p>GWA must acquire or contract for a supply of at least 200 full chlorine cylinders (150 lb. net) backup supply in reserve in addition to cylinders deployed in the GWA water system.</p> <p>The bid for contracting this supply was published on January 17 and 18, 2007. Bid Opening was January 25, 2007. GWA received one responsive and valid bid. A contract was completed by the compliance date.</p> <p>GWA has contracted with the local chlorine supplier to maintain a minimum inventory of 200 full cylinders on island at all times.</p>	01/31/2007

Paragraph No.	Title	Status	Critical Dates
12 (C)	Upgrade of Groundwater Chlorination System Project	<p>On October 30, 2006, GWA prepared a revised work plan for the upgrade of the GWA Groundwater Disinfection System Project. Review comments by GEPA have not been forthcoming, but the project cannot be held up. The construction phase of this project is to be completed by April 01, 2007 which date may be jeopardized by the delay in receiving review comments.</p> <p>The report on this project was Submitted to EPA on April 06, 2007.</p> <p>A contract has been bid and awarded to complete the chlorine system upgrade as specified above [Paragraph 11]. The final scope of work has been separated into two parts to accommodate available funding status; part of which requires PUC approval in order to complete all the work.</p>	<p>10/30/2006</p> <p>04/01/2007</p>
13	Leak Detection and Response Program	<p>Submitted 11/27/2003. Program in Operation completing area water audits, pinpointing locations of visible leaks, locating leaks not visible on the surface and finding illegal connections to GWA system. EPA review sent 03/04/2004 requesting expansion and clarification. GWA revision prepared 04/01/2004 emphasizing the need to focus on response as the present program locates system problems at a rate that requires outside support to keep up with findings, including areas that need complete water line replacement. Additional "response" funding support was requested from and budgeting approved by the CCU. Interim Leak Detection and Response report was be one of the first components of the Water Resources Master Plan submitted, 11/01/2004.</p> <p>An Island wide complete leak detection study was completed on schedule 09/30/2005 the results of which will be used in Water Resourced Master Plan project recommendations.</p> <p>GWA presently has an active crew dedicated solely to Leak Detection, full time. In FY 2007, GWA repaired 11,367 leaks.</p>	<p>09/30/2005</p>

Paragraph No.	Title	Status	Critical Dates
14	Water Meter Improvement Program	<p>EPA Approved Program 08/19/2003.</p> <p>All Meters have been Awarded and contracted with Kusakabe Guam, Inc. [Program hold due to protest filed in Guam Superior Court (at a cost to GWA rate payers of nearly \$2,000,000 due to the delay in recovery of unaccounted for water) was vacated <i>with prejudice</i> by Superior Court Decision and Order.</p> <p>A new Schedule for the start of the meter replacement project has been prepared and submitted to USEPA for review and approval. The original completion date for the project of June 5, 2006 was not met. Current compliance completion date is November 30, 2007, per the SO amended version.</p> <p>All agreements and financing arrangements have been completed. Actual installation is was begin in late December 2005. The first shipment of meters, meter boxes and appurtenances was shipped and reached Guam on September 07. 2005 . Most large meters have already been replaced, and change-out of residential meters which began on April 24, 2006 was temporarily halted due to problems with the amount of data required to manage this project.</p> <p>A more conservative installation of the Residential meters was begun in Umatac, and has gone around the South end of the island, up through Inarajan, Talofofo, Chalan Pago, Piti, Asan, Sinajana and Agaña Heights, Tamuning, and is now in progress in Tumon, Barrigada and Mangilao. Installation of more than half the total to be changed are now completed.</p> <p>Progress has significantly slowed for this project for a number of reasons, including the difficulty in keeping supplied with ancillary installation parts but primarily due to the unanticipated poor quality of installation work allowed by the Government of Guam prior to the inception of the CCU which results in major repair work being needed for the majority of upgrade meter installations in conjunction with the meter change-outs.</p>	11/30/2007

