

Janessa Blas

From: jbabauta@guamwaterworks.org
Sent: Thursday, July 11, 2024 2:37 PM
To: 'Janessa Blas'; prudencio@guamwaterworks.org; 'Yvonne Cruz'
Cc: 'Jude Calvo'; gjwatson@guamwaterworks.org; thomas@guamwaterworks.org
Subject: RE: IDIQ RRR- Brown & Caldwell

Hi Janessa; Tamuning/Tumon Hotspots is to rehab our gravity line to address Sanitary Sewer Overflows therefore please temporarily use MP-WW-Pipe-01 Gravity Pipe Rehabilitation/Replacement Program. Please let me know if you have any concerns or questions. Please approve this asap.

Thanks,
Jeanet

From: Janessa Blas <janessab@guamwaterworks.org>
Sent: Thursday, July 11, 2024 10:10 AM
To: prudencio@guamwaterworks.org; 'Yvonne Cruz' <ymcruz@guamwaterworks.org>
Cc: 'Jude Calvo' <judecalvo@guamwaterworks.org>; jbabauta@guamwaterworks.org; gjwatson@guamwaterworks.org
Subject: RE: IDIQ RRR- Brown & Caldwell

Encho,

Yes, there are other funds we can use as a placeholder until such time we receive the FY24 EPA Grant. Please get with Jeanet to identify. I can clear the parent ID/IQ but I cannot clear the Task Order for Design-Build ID/IQ Contract Development, NASSCO Training, Tamuning/Tumon Hot Spots PM/CM contract until a fund source is identified.

Janessa

From: prudencio@guamwaterworks.org <prudencio@guamwaterworks.org>
Sent: Tuesday, July 9, 2024 5:21 PM
To: 'Janessa RC Blas' <janessab@guamwaterworks.org>; 'Yvonne Cruz' <ymcruz@guamwaterworks.org>
Cc: 'Jude Calvo' <judecalvo@guamwaterworks.org>; jbabauta@guamwaterworks.org; gijwatson@guamwaterworks.org
Subject: FW: IDIQ RRR- Brown & Caldwell

Janessa,

To recap, you are holding on two agreements for signature, 1) IDIQ PM/CM for Island wide Sewer Collection/Transmission System Repair, Rehabilitation and Replacement, 2) IDIQ Engineering Design and CM Service for Asbestos Cement Pipe(ACP) Waterline Replacement. Both agreements were accompanied with with a Task Order #1.

This email is evidence of approval for item number 1- IDIQ PM/CM for Island wide sewer/collection/transmission system RRR- Task Order#1 Tumon-Tamuning Hotspots CM. Full disclosure—we are pending USEPA FY 2024 award for \$850K portion. We do not expect the project to progress till another few months. Can other funds-bonds be used in-lieu of grant till award is transmitted to GWA, and agreement signed. Your call.

encho

From: Jude Calvo <judecalvo@guamwaterworks.org>
Sent: Tuesday, July 9, 2024 3:22 PM

Exhibit C

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THE DISTRICT COURT OF GUAM

UNITED STATES OF AMERICA,

Plaintiff,

vs.

GUAM WATERWORKS AUTHORITY and
the GOVERNMENT OF GUAM,

Defendants.

CIVIL CASE NO. 24-00004

ORDER

Before the court is Plaintiff United States of America’s¹ Consented-To Motion to Enter Proposed Partial Consent Decree Under the Clean Water Act. *See* Mot., ECF No. 5. After a thorough review of the Partial Consent Decree, filed on January 31, 2024, the court hereby finds that the Partial Consent Decree is fair, reasonable, and consistent with the Clean Water Act. *See* Partial Consent Decree, ECF No. 2-1. Accordingly, the court will sign and enter the Partial Consent Decree as an order of this court.²

SO ORDERED.



/s/ Frances M. Tydingco-Gatewood
Chief Judge
Dated: Aug 09, 2024

¹ The Plaintiff is acting on behalf of the United States Environmental Protection Agency. *See* Mot. at 2, ECF No. 5.

² The court finds that there appear to be the following typographical errors in the Partial Consent Decree: (1) page 30, line 21, the letter “h” after the end of the sentence seems superfluous; (2) page 48, line 10, cites to “2.c”; the citation should be to “12.c”; and (3) page 56, line 5, cites to “Paragraph 476”, the citation should be to “Paragraph 46”. Partial Consent Decree, ECF No. 2-1. The court notes that the page numbers referenced in this footnote are taken from the document itself and not CM/ECF. If the parties agree that these are typographical errors, the court will allow the parties to come to the clerk’s office and make the corrections by interlineation.

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IN THE DISTRICT COURT OF GUAM

19	UNITED STATES OF AMERICA,)	
20)	
21	Plaintiff,)	Civil Action No. <u>24-00004</u>
22)	
23	v.)	PARTIAL CONSENT DECREE
24)	
25	GUAM WATERWORKS AUTHORITY and)	
26	the GOVERNMENT OF GUAM,)	
27	Defendants.)	
28)	

FILED
 DISTRICT COURT OF GUAM
 AUG 29 2024 *Re 3:40*
JEANNE G. QUINATA
 CLERK OF COURT

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1 Plaintiff United States of America, on behalf of the United States Environmental
2 Protection Agency (“EPA”), has filed a complaint in this action concurrently with the lodging of
3 this Consent Decree (the “Complaint”), alleging that Guam Waterworks Authority (“GWA” or
4 “Defendant”) violated the conditions and limitations of GWA’s National Pollutant Discharge
5 Elimination System (“NPDES”) permits EPA issued to GWA pursuant to Section 402 of the
6 Clean Water Act (“CWA” or “Act”), 33 U.S.C. § 1342.

8 GWA, a public corporation, owns and operates a publicly owned treatment works
9 (“POTW”) that collects, treats, and disposes of sanitary sewage for the Territory of Guam
10 including certain U.S. military installations. The Complaint alleges that GWA is violating the
11 Act by discharging untreated sewage from its Wastewater Collection System in violation of its
12 NPDES permits. The Complaint also alleges that GWA is violating the Act by discharging
13 sewage from its Northern District Wastewater Treatment Plant (“Northern District WWTP”) and
14 Agaña/Hagåtña Wastewater Treatment Plant (“Hagåtña WWTP”) in violation of its NPDES
15 permits. The Parties acknowledge that in 2022, GWA upgraded its Northern District WWTP to
16 secondary treatment technology to address certain of these alleged violations. The Parties also
17 acknowledge that GWA has initiated several other actions specified herein in Section V
18 (Compliance Requirements).
19
20

21 GWA has alleged certain hardships and provided documentation to the United States,
22 detailing its financial hardship and other limitations on its ability to make infrastructure
23 improvements due to Guam regulatory, labor, and construction-related constraints.
24

25 The Government of Guam (“Guam”) is joined as a statutory defendant in this action
26 pursuant to CWA Section 309(e), 33 U.S.C. § 1319(e), and shall be liable for payment of any
27 judgment or any expenses incurred as a result of complying with any judgment entered against
28

1 GWA, to the extent that Guam’s laws and regulations prevent GWA from raising revenues
2 needed to comply with such judgment.

3 Defendants do not admit any liability to the United States arising out of the transactions
4 or occurrences alleged in the Complaint.

5 The Parties recognize, and the Court by entering this Consent Decree finds, that this
6 Consent Decree has been negotiated by the Parties in good faith and will avoid litigation among
7 the Parties regarding certain relief with respect to the claims alleged in the Complaint, and that
8 this Consent Decree is fair, reasonable, and in the public interest.

9
10 The Parties agree that certain further relief to address the claims alleged in the Complaint
11 shall be addressed in a future consent decree or by litigation, including but not limited to
12 implementation of the approved Force Main Action Plan, completion of Tier 2, 3, and 4 Pump
13 Station Projects, Gravity Main Replacement or Rehabilitation of at least 35 additional “unique
14 miles,” additional wet and dry flow monitoring for the Tumon Basin, and upgrading the Hagåtña
15 WWTP to secondary treatment. The Parties intend to reengage in negotiations regarding the
16 remaining injunctive relief and payment of an appropriate civil penalty no later than seven (7)
17 years following the Effective Date of this Consent Decree.
18
19

20 NOW, THEREFORE, before the taking of any testimony, without the adjudication or
21 admission of any issue of fact or law except as provided in Section I (Jurisdiction and Venue),
22 and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED
23 as follows:
24

25 **I. JURISDICTION AND VENUE**

26 1. This Court has jurisdiction over the subject matter of this action, pursuant to
27 28 U.S.C. §§ 1331, 1345, and 1355, and Section 309(b) and (e) of the Act, 33 U.S.C. § 1319(b)
28 and (e), and over the Parties. Venue lies in this District pursuant to CWA Section 309(b), 33

1 U.S.C. § 1319(b), and 28 U.S.C. §§ 1391(b) and (c) and 1395(a), because GWA is located in this
2 judicial district, and the violations alleged in the Complaint are alleged to have occurred in this
3 judicial district. For purposes of this Decree, or any action to enforce this Decree, Defendants
4 consent to the Court's jurisdiction over this Decree and any such action and over Defendants and
5 consent to venue in this judicial district.

6
7 2. For purposes of this Consent Decree, Defendants agree that the Complaint states
8 claims upon which relief may be granted pursuant to CWA Section 309(b), 33 U.S.C. § 1319(b).

9 3. EPA has notified the Government of Guam of this action under CWA Section
10 309(b), 33 U.S.C. § 1319(b).

11 **II. APPLICABILITY**

12
13 4. The obligations of this Consent Decree apply to and are binding upon the United
14 States and upon GWA, and any successors, assigns, or other entities or persons otherwise bound
15 by law, and upon Guam and its representatives and any successors, assigns, or other entities or
16 persons otherwise bound by law, when liability is incurred pursuant to Section 309(e) of the Act,
17 33 U.S.C. § 1319(e).

18
19 5. No transfer of ownership or operation of GWA's POTW, whether in compliance
20 with the procedures of this Paragraph or otherwise, shall relieve GWA of its obligation to ensure
21 that the terms of the Decree are implemented. At least thirty (30) Days prior to such transfer,
22 GWA shall provide a copy of this Consent Decree to the proposed transferee and shall
23 simultaneously provide written notice of the prospective transfer, together with a copy of the
24 proposed written agreement, to EPA and the United States, in accordance with Section XIII
25 (Notices). Any attempt to transfer ownership or operation of the POTW without complying with
26 this Paragraph constitutes a violation of this Decree.
27

28 6. GWA shall provide a copy of this Consent Decree to all officers, employees, and

1 SSO.

2 “Bypass,” as defined by 40 C.F.R. § 122.41(m), shall mean the intentional diversion of
3 waste streams from any portion of a Wastewater Treatment Plant.

4 “Complaint” shall mean the Complaint filed by the United States in this action.

5 “Consent Decree” or “Decree” shall mean this Decree and all Appendices attached hereto
6 (listed in Section XXIII).

7
8 “Consequence of Failure” or “COF” shall mean the outcome of an asset failure if a
9 failure should occur.

10 “Consequence of Failure Score” or “COF Score” shall mean a numerical value of 1 to 5
11 assigned to an asset based on an analysis of the consequence of an asset failure. Calculating
12 consequence of failure involves obtaining information about an asset’s original design, material,
13 installation, and operating parameters in conjunction with an assessment or estimate of its
14 potential impact to human health, the environment, and economy were the asset to fail. Criteria
15 factors can be given a score ranging from 1 (low impact of failure) to 5 (high impact of failure)
16 and a weight, which allow some factors to be given more importance than others.

17
18 “Day” shall mean a calendar day unless expressly stated to be a business day. In
19 computing any period of time under this Consent Decree, where the last day would fall on a
20 Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next
21 business day.

22
23 “Defendants” shall mean Guam Waterworks Authority and the Government of Guam.

24 “Depth to diameter (d/D) ratio” shall mean the depth of height of water within the pipe
25 segment divided by the inner diameter of the pipe segment.

26
27 “EPA” shall mean the United States Environmental Protection Agency and any of its
28

1 successor departments or agencies.

2 “Effective Date” shall have the definition provided in Section XIV.

3 “Facility” shall mean GWA’s “treatment works” or “Publicly Owned Treatment Works”
4 or “POTW”, as those terms are defined in 33 U.S.C. § 1292(2)(a) and 40 C.F.R. § 403.3(q).

5 “Flow Model” shall mean the hydrologic and hydraulic model that: (a) takes inputs
6 relating to weather conditions and the Wastewater Collection System’s operating parameters;
7 and (b) predicts flows in the Wastewater Collection System and Wastewater Treatment Plants.

8 “FOG” shall mean fats, oils, and grease, which are animal- and plant-derived substances
9 that may solidify or become viscous due to temperature and other factors.

10 “Food Service Establishment” or “FSE” shall mean any facility or lessor to a facility
11 preparing and/or serving food for commercial use or sale, including but not limited to,
12 restaurants, coffee shops, public or private school cafeterias, lunchrooms, luncheonettes, lunch-
13 counters, in-plant or employee eating establishments, bars, cafes, taverns, sandwich stands, drink
14 stands, temporary food service establishments, mobile food service establishments, food
15 preparation kitchens, any cafeteria or similar facility and any other eating establishment with
16 food preparation such as organizations, clubs, boardinghouses, guesthouses, or concessions
17 within any public market that gives or sells food or beverages to the public, guests, patrons or
18 employees, as well as kitchens in which food is prepared on the premises for serving elsewhere,
19 including cafeteria functions, home manufacturers and caterers, and home food industries, and
20 food packaging, meat processing, and meat packing facilities.

21 “Force Main” shall mean any pipe that receives, contains, and conveys, under pressure,
22 wastewater from the discharge side of a pump.

23 “Gravity Main” shall mean any pipe that receives, contains, and conveys wastewater,
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1 which is not normally under pressure, but is intended to flow unassisted under the influence of
2 gravity.

3 “Grease Removal Device” or “GRD” shall mean a concrete, fiberglass, or fiberglass-
4 reinforced plastic structure designed to separate and retain grease and oil from the wastewater
5 stream. GRDs are multiple-compartment units with inlet and outlet baffles and/or T-pipes, and
6 inspection ports.
7

8 “GWA” shall mean the Guam Waterworks Authority.

9 “Infiltration” shall mean water other than wastewater that enters a Wastewater Collection
10 System during wet weather conditions from the ground through such means as defective pipes,
11 pipe joints, connections, or manholes.
12

13 “Inflow” shall mean water other than wastewater that enters a Wastewater Collection
14 system during wet weather conditions from illicit or unpermitted sources other than Infiltration,
15 such as, but not limited to, roof leaders, foundation drains, yard drains, area drains, drains from
16 springs and swampy areas, manhole covers, cross connections between sanitary sewers and
17 storm sewers, catch basins, cooling towers, storm water, surface runoff, street wash waters, or
18 drainage.
19

20 “Inflow and Infiltration” or “I&I” shall mean all water from both Infiltration and Inflow
21 without distinguishing the source.
22

23 “Lateral” shall mean that portion of a Gravity Main lateral line that is owned by GWA
24 and located between: (i) the Gravity Main and (ii) either the property line of a residence or
25 business, or the boundary of an established easement.

26 “Likelihood of Failure” or “LOF” shall mean the statistical probability that defects could
27 cause an asset to fail, inhibiting its ability to effectively convey Municipal Sewage based on the
28

1 observed or estimated condition of the asset.

2 “Likelihood of Failure Score” or “LOF Score” shall mean a numerical value of 1 to 5,
3 assigned to an asset based on the observed or estimated condition of the asset. Calculating
4 likelihood of failure involves obtaining information about an asset’s original design, material,
5 installation, and operating parameters in conjunction with an assessment or estimate of its
6 potential current condition. Criteria factors can be given a score ranging from 1 (good) to 5
7 (poor) and a weight, which allow some factors to be given more importance than others.

9 “Municipal Sewage” shall mean domestic, commercial, and industrial wastewaters.

10 “NASSCO” shall mean the National Association of Sewer Service Companies.

11 “NPDES Permit” or “Permit” as used herein shall mean the National Pollutant Discharge
12 Elimination System Permits issued to GWA for the Facility (Permit Numbers GU0020087,
13 GU0020222, GU0020141, GU0020273), or any successor permit(s).

15 “Paragraph” shall mean a portion of this Decree identified by an Arabic numeral.

16 “Parties” shall mean the United States, GWA, and the Government of Guam.

17 “Power Supply” shall mean an electrical power supply system for a Pump Station in
18 which the sizing, design, and installation of the system complies with National Electric Code
19 requirements; all electrical components, panels and enclosures shall be listed by Underwriter’s
20 Laboratory and/or rated by the National Electrical Manufacturer’s Association (“NEMA”) as
21 appropriate for Pump Stations; all electrical components, panels and enclosures shall be
22 protected from physical damage by the 100 year flood, all electrical control panels shall be
23 enclosed in protective enclosure panels that are NEMA rated for harsh, corrosive environments,
24 and wastewater pumping stations should remain fully operational during the 25 year flood.

27 “Professional Engineer” shall mean a Professional Engineer registered on Guam pursuant
28

1 to the requirements of the National Council of Examiners for Engineers and Surveyors or
2 equivalent international organization standards as approved by EPA in the appropriate discipline
3 (e.g., civil, mechanical, electrical) for the work being undertaken.

4 “Preferred Operating Region” or “POR” shall mean the range of flows over which a
5 pumped flow is highly controllable and is established by the pump manufacturer in accordance
6 with ANSI/HI 9.6.3 Rotodynamic (Centrifugal and Vertical) Pumps – Guideline for Allowable
7 Operating Region. Within this range, the service life of the pump is not significantly affected by
8 hydraulic loads, vibration, or flow separation.

10 “Pretreatment Standard” shall mean general Pretreatment Standards in 40 C.F.R. Part
11 403, categorical Pretreatment Standards, local limits, and State and local law.

13 “Publicly Owned Treatment Works” or “POTW” shall mean the treatment works, as
14 defined in 33 U.S.C. § 1292(2)(a) and 40 C.F.R. § 403.3(q), that is owned and operated by
15 GWA.

16 “Pump Station” shall mean facilities comprised of pumps that lift wastewater to a higher
17 hydraulic grade line, including all related electrical, mechanical, and structural systems necessary
18 to the operation of that Pump Station.

20 “Rehabilitation” or “Rehabilitate” shall mean:

- 21 a. For Gravity Mains: the renewal or reconstruction of a Gravity Main from node to
22 node, including all manholes and Laterals connected to the Gravity Main;
23
24 b. For Pump Stations: the renewal or reconstruction of a Pump Station;
25
26 c. For Force Mains: the renewal or reconstruction of a Force Main pipe segment;

27 “Repair” shall mean:

- 28 a. For Gravity Mains: the work of fixing a portion of a Gravity Main that does not

1 result in Rehabilitation of the Gravity Main;

2 b. For Pump Stations: the work of fixing a portion of a Pump Station that does not
3 result in Rehabilitation of the Pump Station;

4 c. For Force Mains: the work of fixing a portion of a Force Main that does not result
5 in Rehabilitation of the Force Main;

6 “Replace” or “Replacement” shall mean:

7
8 a. For Gravity Mains: the work of demolishing a Gravity Main and installation of a
9 new Gravity Main in its place, including all manholes and Laterals connected to the Gravity
10 Main;

11 b. For Pump Stations: the work of demolishing an entire Pump Station, including the
12 wet well, and installation of a new Pump Station in its place;

13 c. For Force Mains: the work of demolishing a Force Main and installation of a new
14 Force Main in its place;

15
16 “Sanitary Sewer Overflow” or “SSO” shall mean an overflow, spill, diversion, or release
17 of wastewater from or caused by GWA’s Wastewater Collection System, except that the term
18 “SSO” does not include wastewater backups into buildings caused solely by a blockage or other
19 malfunction in a building lateral that is privately owned.

20
21 “Section” shall mean a portion of this Decree identified by a Roman numeral.

22 “State,” as defined in 33 U.S.C. § 1362(3), shall mean the Territory of Guam.

23
24 “Ten States Standards” shall mean the *Recommended Standards for Wastewater*
25 *Facilities, Policies for the Design, Review, and Approval of Plans and Specifications for*
26 *Wastewater Collection and Treatment Facilities, 2014 Edition* or any revisions thereof.

27 “United States” shall mean the United States of America, acting on behalf of EPA.
28

1 “Wastewater Collection System” shall mean all parts of the wastewater collection system
2 owned or operated by GWA that are intended to convey Municipal Sewage to GWA’s
3 Wastewater Treatment Plants, including, without limitation, sewers, pipes, Gravity Mains, Pump
4 Stations, lift stations, manholes, Force Mains, and appurtenances associated with each of the
5 above.

6 “Wastewater Treatment Plant” or “WWTP” shall mean that portion of GWA’s POTW
7 that is designed to provide treatment (including recycling and reclamation) of Municipal Sewage
8 and industrial waste.
9

10 **V. COMPLIANCE REQUIREMENTS**

11 10. Implementation of Compliance Requirements. GWA shall implement the
12 compliance requirements in this Section in accordance with Section III (Objectives) of this
13 Decree and by the deadlines set forth herein.
14

15 A. WASTEWATER COLLECTION SYSTEM

16 11. Gravity Main Condition Assessment. GWA shall complete a closed-circuit
17 television (“CCTV”) inspection and submit a Gravity Main Condition Assessment Report
18 regarding all of its Gravity Mains in accordance with the following schedule:
19

20 a. Within 210 days of the Effective Date, as an interim milestone, GWA
21 shall complete CCTV inspection of all Gravity Mains in GWA’s Wastewater Collection System,
22 except for pipe segments that are inaccessible for CCTV inspection, which are identified in
23 Appendix A. For pipe segments identified in Appendix A, GWA shall conduct pipe inspections
24 utilizing acoustic-based sewer pipe assessment technology. GWA shall not use CCTV
25 recordings completed before January 1, 2013. If any of the pipe segments identified in Appendix
26 A become accessible for CCTV inspection, GWA shall complete CCTV inspection of those pipe
27 segments within 30 Days and report on that inspection in the next semi-annual report.
28

1 b. Within nine (9) months of the Effective Date, GWA shall complete and
2 document an assessment of each CCTV inspection for all Gravity Mains in GWA's Wastewater
3 Collection System in accordance with NASSCO standards. For the pipe segments identified in
4 Appendix A, GWA shall complete and document an assessment of each acoustic-based pipe
5 segment inspection and compare the results with the assessment based on CCTV inspection of
6 the Wastewater Collection System in accordance with good engineering practices.
7

8 c. Within eighteen (18) months of the Effective Date, as an interim
9 milestone, GWA shall submit to EPA for review and approval a Gravity Main Condition
10 Assessment Report that evaluates, at a minimum, NASSCO rating, failure mode, Likelihood of
11 Failure, Consequence of Failure, criticality analysis, and remaining useful life of all Gravity
12 Mains in GWA's Wastewater Collection System, and recommends Gravity Main Repair,
13 Rehabilitation, and Replacement based upon those evaluations and good engineering practices.
14

15 12. Gravity Main Repair, Rehabilitation, and Replacement Program. GWA shall
16 implement a Gravity Main Repair, Rehabilitation, and Replacement program in accordance with
17 this Paragraph.
18

19 a. Acute Defects. As a compliance milestone, GWA shall Repair,
20 Rehabilitate, or Replace Gravity Main segments or assets with Acute Defects as soon as possible,
21 but no later than 18 month(s) after GWA identifies the Acute Defect for GWA in-house Repair,
22 Rehabilitation, or Replacement, and no later than 24 months after GWA identifies the Acute
23 Defect for a Repair, Rehabilitation, or Replacement to be performed by external contractors.
24

25 b. Rehabilitation or Replacement. As a compliance milestone, GWA shall
26 Rehabilitate or Replace a total of thirty "unique miles" of Gravity Mains within ten (10) years of
27 the Effective Date. Rehabilitation or Replacement Work completed up to one (1) year prior to
28

1 lodging of this Consent Decree may be credited toward the mileage milestones. As interim
2 milestones, GWA shall Rehabilitate or Replace:

3 i. at least ten “unique miles” by September 1, 2027;

4 ii. at least twenty “unique miles” by September 1, 2030;

5 c. Work Plan. Within the earlier of three (3) months of the EPA’s approval
6 of the Gravity Main Condition Assessment Report or twenty-four (24) months of the Effective
7 Date, as an interim milestone, GWA shall submit a Gravity Main Work Plan to EPA, for review
8 and approval, that organizes all necessary Gravity Main Repair, Rehabilitation, and Replacement
9 work recommended in its Gravity Main Condition Assessment Report into an appropriate
10 prioritization list that prioritizes work with the goal of preventing SSOs and limiting I&I: Acute
11 Defect, short-term, or long-term. GWA shall include in the Gravity Main Work Plan a schedule
12 for all Acute Defect and Short-Term Gravity Main Repair, Rehabilitation and Replacement work
13 for the next five years based on its prioritization list. GWA shall schedule all Acute Defect work
14 in accordance with Paragraph 12.a.
15

16 d. Annual Evaluation. GWA shall evaluate its Gravity Main Work Plan
17 prioritization list and work schedule as needed, but not less than annually. The annual evaluation
18 shall be submitted to EPA for its information and shall be completed by September 30 of each
19 calendar year. Any modifications to the work schedules are subject to EPA review and approval.
20

21 13. a. Long-Term Gravity Main Plan. Within nine (9) years of the Effective
22 Date, as a compliance milestone, GWA shall submit to EPA for review and approval a Long-
23 Term Gravity Main Plan that: (i) sets out a schedule for the design and construction of all
24 necessary Long-Term Gravity Main Rehabilitation and Replacement work in its Gravity Main
25 Work Plan prioritization list; (ii) meets the capacity criterion established in the Storm Technical
26
27
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1 Memorandum dated January 4, 2023 (the “Storm Technical Memorandum”); and (iii) proposes
2 an annual commitment of Gravity Main mileage of at least three (3) miles per year for
3 Rehabilitation or Replacement. GWA’s Long-Term schedule and work shall take into account
4 the Capacity Assurance Program and GWA’s Capacity Evaluation Report and Flow Model in
5 Paragraph 14.b, below. GWA shall provide the associated cost estimates for all work under the
6 Plan with as much specificity as possible.
7

8 b. Capacity Assurance Program. GWA’s POTW shall not exceed the
9 POTW’s design capacity. All pipe segments in GWA’s Gravity Mains shall meet the capacity
10 criterion established in the Storm Technical Memorandum. Based on the Flow Model results
11 and the Capacity Evaluation Report results, GWA shall develop and submit as part of its Long-
12 Term Gravity Main Plan a Capacity Assurance Program (“CAP”). The CAP shall include a plan
13 and schedule, for EPA review and approval, for work necessary to ensure that GWA’s
14 Wastewater Collection System and POTW will have adequate capacity.
15

16 14. Capacity Evaluation Report. Within eighteen (18) months of the Effective Date,
17 as an interim milestone, GWA shall complete a Capacity Evaluation Report that identifies
18 current or potential future flow bottlenecks within the Wastewater Collection System. The
19 Capacity Evaluation Report shall:
20

21 a. Include a hydraulic assessment;
22 b. Include a Flow Model for GWA’s POTW, including both the Wastewater
23 Collection System and WWTPs, that is calibrated according to the Chartered Institution of Water
24 and Environmental Management (CIWEM) Code of Practice for the Hydraulic Modelling of
25 Urban Drainage Systems Version 01 and is consistent with the Storm Technical Memorandum.
26 The Flow Model calibration shall incorporate: (i) new data gathered through December 31, 2022;
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1 (ii) physical changes to the Wastewater Collection System and changes to capacity at the POTW
2 through December 31, 2022; (iii) additional wet and dry flow monitoring for the Central Basin;
3 and (iv) Flow Model verification. As part of the Capacity Evaluation Report, GWA shall
4 provide a detailed Flow Model calibration description that: (i) details how the Flow Model was
5 calibrated in accordance with CIWEM best practices; (ii) summarizes the data used to calibrate
6 the Flow Model; and (iii) describes the confidence of the Flow Model;

7
8 c. Identify, at a minimum, the hydraulic capacities of the POTW, and
9 compare those capacities to existing and future projected average and peak flows in dry and wet
10 weather; and

11 d. Identify those portions of the POTW that are expected to cause or
12 contribute to SSOs or prohibited Bypasses at the WWTPs under existing and future projected
13 average and peak flows in dry and wet weather, and prioritize those portions, under current or
14 projected future conditions, to meet the capacity criterion in the Storm Technical Memorandum.

15
16 15. Capacity Assurance Projects. Within seven (7) years of the Effective Date, as a
17 compliance milestone, GWA shall complete necessary Rehabilitation, Replacement or sewer
18 pipe upsizing to assure adequate capacity for peak wet weather flows at the Wastewater
19 Collection System locations identified in subparagraphs 15.a-e of this Paragraph and any other
20 critical capacity-limited segments in the Wastewater Collection System identified in GWA's
21 Capacity Evaluation Report submitted to EPA pursuant to Paragraph 14 (collectively, "Capacity
22 Assurance Projects"). GWA shall ensure each Capacity Assurance Project assures adequate pipe
23 capacity, meaning that pipe segments have a depth to diameter (d/D) ratio meeting the capacity
24 criterion established in the Storm Technical Memorandum.
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27 a. Route 12 at Route 2;
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b. Marine Corps Drive between Route 4 and Highway 6;

c. Barrigada Pump Station;

d. Route 1 (Dededo). GWA shall complete the Northern District Capacity Replacement – Phase 1 project along the highlighted pipe segments in Appendix B, and submit a proposed schedule for the remaining Route 1 projects for EPA review and approval;

e. Route 4 (between Pump Station 18 and Pump Station 14).

16. Capacity Assurance Report. After completing all of the Capacity Assurance Projects listed above in Paragraph 15, GWA shall incorporate those Capacity Assurance Projects into GWA’s Flow Model and shall recalibrate the Flow Model using best industry practices. Within six (6) months of completion of the projects in Paragraph 15, as an interim milestone, GWA shall submit a Capacity Assurance Report to EPA to evaluate whether the capacity projects remedied the capacity issues at each of the locations listed in Paragraph 15.a-e, and to identify any other capacity bottlenecks within the Wastewater Collection System, particularly those locations in need of Rehabilitation, Replacement, or sewer pipe upsizing to assure capacity. The Capacity Assurance Report shall include a proposed schedule, which shall be subject to EPA’s review and approval, to implement Rehabilitation, Replacement, and improvement projects to address any identified capacity issues.

17. Force Main Inventory. Within 60 days of the Effective Date, as an interim milestone, GWA shall submit to EPA a list of all Force Main segments in its entire Wastewater Collection System that identifies each segment’s location, properties (flow rate, pipe material, diameter, length, installation date, etc.), known condition, last inspection date, and type of inspection conducted. Together with this list, GWA shall submit to EPA a GIS map that includes the locations of all Force Mains.

1 18. Force Main Condition Assessment. Within three (3) years of the Effective Date,
2 as an interim milestone, GWA shall complete a Force Main condition assessment for the Force
3 Mains identified in Table A, below. As part of the Force Main condition assessment, GWA shall
4 ensure that the condition assessment steps detailed below are performed for all Table A Force
5 Mains, valves, air relief valves, drains, connections, fittings and appurtenances associated with
6 the Force Main, and is conducted, stamped, and certified by a Professional Engineer. At a
7 minimum, GWA shall:

- 9 a. Inspect and determine functionality;
- 10 b. Identify defects such as inoperable valves, exposed corrosion, leaks,
11 cracks, or other conditions that could contribute to the failure of the Force Main;
- 12 c. Evaluate all metallic (cast iron, ductile iron, steel, etc.) and concrete Force
13 Mains, fittings, and appurtenances to determine whether corrosion protective measures are
14 necessary. Appropriate corrosion protective measures include:
- 15 i. Targeted pipeline/component replacement;
- 16 ii. Adding protective coatings;
- 17 iii. Installing an internal pipe lining; and
- 18 iv. Adding targeted cathodic protection.
- 19 d. Conduct an external pipe inspection of the exterior of each Force Main at
20 each location where the pipe segment is exposed to assess structural damage and the integrity of
21 protective coatings using visual inspection and technology suitable to the particular pipe to
22 identify possible defects such as leaks, cracks, corrosion, erosion, pinholes, coating damage,
23 delamination or any other conditions that could contribute to the failure of the Force Main. For
24 purposes of this Paragraph, suitable technology shall be no less than ultrasonic testing, magnetic
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1 flux leakage, or broadband electromagnetic testing, or a technology that EPA and GWA agree is
2 equivalent to those technologies in terms of its ability to meet the stated objectives of inspection
3 and assessment. The requirements of subparagraph d of this Paragraph do not apply to Force
4 Mains that are, as of the Effective Date, in the engineering design phase of a construction
5 project;

6
7 e. Conduct pressure testing evaluations on all segments of Table A Force
8 Mains that have a LOF greater than 3.4, using accepted engineering methods suitable for each
9 pipe to identify possible defects or any other conditions that could contribute to the failure of the
10 Force Main. The purpose of the pressure testing evaluation is to determine if the design,
11 construction, and materials are sufficient to withstand the maximum predicted transient pressures
12 that may be expected to occur under normal, peak flow, and emergency (shut-down and start-up)
13 conditions. This evaluation shall include, but not necessarily be limited to, (i) a review of
14 available pressure data, and (ii) an evaluation using actual pressure measurements of the transient
15 pressures that occur during the range of anticipated operating conditions. Any actual pressure
16 measurements shall be limited to the range of operating conditions that is both prudent and
17 practicable. GWA shall follow up on observed conditions that are likely to be a source of
18 leakage. The methodologies employed will be appropriate to the type of condition and location
19 of the suspected leakage. The requirements of subparagraph e of this Paragraph do not apply to
20 Force Mains that are, as of the Effective Date, in the engineering design phase of a construction
21 project;

22
23 f. Identify the extent to which defects affect the performance of the Force
24 Main, through performance indicators such as unusual noise, vibrations, pipe and pipe joint
25 leakage and displacement, valve arrangement and leakage, lift station operation and
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1 performance, discharge pump rates and pump speed, and pump suction and discharge pressures;

2 g. Review operating data, such as operating pressures, pump run times, and
3 flow rates, as well as reports of physical inspections, which can reveal reduced Force Main
4 capacity and other performance issues to determine if there is an actual or potential significant
5 reduction in capacity; and

6 h. Determine the Force Main's probable time of failure for the following four
7 failure modes based on the information gathered in subparagraphs a-f of this Paragraph:
8 condition or structural failure, end of useful life, capacity, and not meeting an established level of
9 service.

10
11 19. Force Main Assessment Report. Within three-and-a-half (3.5) years of the
12 Effective Date, as an interim milestone, for each Force Main that was assessed pursuant to
13 Paragraph 18, GWA shall submit to EPA, for review and approval, a Force Main Assessment
14 Report that:

15
16 a. Describes the method and extent of each assessment conducted under
17 Paragraph 18, including valve, exposed fitting, and exposed appurtenance inspections; corrosion
18 protection evaluations; external pipe inspections; pressure testing evaluations; and leak detection
19 tests. The report must provide a narrative of approach and methodology for inspections,
20 inspection locations and, in an appendix to the report, provide the field data collected pursuant to
21 Paragraph 18.

22
23 b. Describes the results of each assessment for each Force Main conducted
24 pursuant to inspections referenced in Paragraph 18, including valve, exposed fitting, and exposed
25 appurtenance inspections; corrosion evaluations; external pipe inspections, pressure testing
26 evaluations, and leak detection tests;

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1 c. Identifies, and quantifies, where practicable, observed or measured
 2 conditions such as leaks, cracks, corrosion, erosion, pinholes, coating delamination, joint
 3 deflections, pipe deformation, wall-thinning, or any other conditions that could contribute to the
 4 failure of the Force Main;

5 d. Includes an inventory of all pipe segments with observed conditions and
 6 photo documentation of Force Main defects whenever possible;

7 e. Includes a summary of defects that affect the performance of the Force
 8 Main, through performance indicators such as unusual noise, vibrations, pipe and pipe joint
 9 leakage and displacement, valve arrangement and leakage, lift station operation and
 10 performance, discharge pump rates and pump speed, and pump suction and discharge pressures;

11 f. Includes a description of each Force Main’s failure modes, and the
 12 probable time of failure, based on the information gathered through the assessments conducted
 13 pursuant to Paragraph 18; and

14 g. Based on Force Main condition assessments, identifies pipe segments that
 15 leak or are cracked, broken, or ruptured (or have the potential to leak, crack, break, or rupture
 16 within the next ten (10) years), or are experiencing (or have the potential to experience) a
 17 significant reduction in capacity or other conditions that could lead to Force Main failure. GWA
 18 shall identify Force Main capacity issues and other performance issues that result in an actual or
 19 potential significant reduction in capacity.
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23 **Table A: Force Mains for Condition Assessment**

Force Main Lift Station	Basin	Diameter (inches)	Length (feet)	Material	Installation Year	LOF Score (1 to 5)	COF Score (1 to 5)
Hagátña Main	Hagátña	24	2,724	Reinforced concrete	1965	Known poor condition	4.9
Asan	Hagátña	12	2,993	Cast iron	1971	Known poor	2.8

						condition		
1	Bayside	Hagåtña	6	646	ACP	1966	5	3.6
2	Pago Double Shaft	Hagåtña	8	2,474	ACP	1973	4.9	3.2
3	Mamajanao	Hagåtña	14	1,186	Unknown	1971	3.2	4.4
4	Barrigada	Hagåtña	14	6,078	ACP	1978	3.9	3.1
5	Mangilao	Hagåtña	10	2,739	ACP	1974	4.5	2.8
6	Piti	Hagåtña	9.1	4,336	ACP	1971	4.5	2.6
7	Tai Mangilao	Hagåtña	8	1,618	ACP	Unknown	3.4	2.7
8	Pump Station No. 17	Umatac-Merizo	6	2,840	Ductile iron	1980	3.9	2.3
9	Paseo De Oro	Hagåtña	6	686	ACP	1967	5	1.8
10	Dairy Road	Hagåtña	6	3,616	Ductile iron	1983	3.1	2.5
11	Pump Station No. 16	Umatac-Merizo	6	1,095	Ductile Iron	1980	3.1	2.5
12	Maite	Hagåtña	4	393	Unknown	1971	3.2	1.7
13	Harmon	Hagåtña	6	2,260	Unknown	1972	3.2	1.5
14	Fujita	Tumon	18	7,154	Ductile iron	1992	3	3.7
15	Route 16	Northern District	30	5,741	Unknown	1989	2.1	5
16	Yigo	Northern District	16	3,077	Polyethylene	1973	2.8	3.5
17	Chaligan	Agat-Santa Rita	16	6,352	Ductile iron	1995	2.6	3.1
18	Ypao	Hagåtña	7.3	1,741	PVC	Unknown	1.7	3.9
19	Inarajan Main	Inarajan	8	3,893	Unknown	1984	2.7	2.9
20	Southern Link	Northern District	36	4,311	Ductile iron	1992	2.6	2.9
21	New Chaot	Hagåtña	20	2,319	PVC	1989	1.7	2.9
22	Gaan	Agat-Santa Rita	16	10,125	PVC	1995	1.7	2.9
23	Alupang Cove	Hagåtña	6	905	PVC	1991	1.7	2.8
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1 20. Force Main Action Plan. Within six (6) months of EPA approval of the Force
2 Main Assessment Report, as an interim milestone, GWA shall submit to EPA, for review and
3 approval, a Force Main Action Plan consistent with the Force Main Condition Assessment that:

- 4 a. Prioritizes necessary Force Main upgrades;
- 5 b. Includes a schedule for design and implementation of interim Force Main
6 improvement projects where asset failure is likely to occur before Repair, Rehabilitation, or
7 Replacement is complete;
- 8 c. Includes a schedule for design and implementation of Repair,
9 Rehabilitation, Replacement, and improvement projects employing methodologies appropriate to
10 the condition and location of the Force Main;
- 11 d. Requires the installation of corrosion protective measures for metallic
12 (cast iron, ductile iron, steel, etc.) and concrete Force Mains, fittings, and appurtenances that lack
13 adequate corrosion protection or could be subject to corrosion; and includes a schedule for future
14 Force Main condition assessments with an explanation of GWA's Force Main prioritization and
15 scheduling decisions.

16 21. Implementation of the Force Main Action Plan. As a compliance milestone,
17 GWA shall complete construction addressing at least 25% of the linear feet of Force Mains
18 addressed in the approved Force Main Action Plan within nine (9) years of the Effective Date.
19 GWA will be allowed to include Force Main projects completed after the Effective Date for
20 Force Mains listed in Table A. The Force Main Action Plan shall be consistent with the Force
21 Main Condition Assessment in that it will prioritize work at Force Mains that are failing or are
22 most likely to fail.

23 22. Force Main Spill Contingency Plan. Within six (6) months of the Effective Date,
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1 as an interim milestone, GWA shall submit to EPA, for review and approval a Force Main Spill
2 Contingency Plan for all Force Mains that establishes measures and procedures to respond to a
3 Force Main spill event in order to minimize discharges to surface waters, prevent public
4 exposure to the spilled wastewater, and return the Force Main to full service as rapidly as
5 possible. The Force Main Spill Contingency Plan shall include the following sections:

6 a. Force Main Information. The Force Main information section shall
7 contain salient information about the Force Mains including location, diameter, length, material,
8 elevations, design flows and pressures, fittings, parallel force mains, location of waterways, and
9 a vicinity map of the Force Main, including nearby Gravity Mains and Pump Stations that may
10 be used for diversion of flows in the event the Force Main is damaged.

11 b. Spill Response Procedures. The spill response procedures section shall
12 include a list of the actions that GWA anticipates taking in the event of a Force Main spill,
13 including tankering and diversion of flows within the system. This section shall describe the
14 resources GWA will have available to deploy in the event of a Force Main spill, the staff
15 notification procedures, and anticipated response times, with the goal being to restore service to
16 the customer as soon as possible.

17 c. Equipment, Parts, and Supplies. The equipment, parts, and supplies
18 section shall include a list of the equipment, parts, and supplies needed to implement the Plan,
19 including response and repair equipment, spare parts, and supplies that can be used in the event
20 of a Force Main failure. The response equipment shall include portable pumps, hose or piping,
21 sand bags (or equivalent barrier/diversion devices), and pipe plugs. The supplies shall include
22 replacement pipe, valves, and repair kits. The list shall identify the location of all such
23 equipment, parts, and supplies.
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1 23. Force Main Operation and Maintenance Program. Within two (2) years of the
2 Effective Date, as an interim milestone, GWA shall submit to EPA, for review and approval a
3 Force Main Operations and Maintenance (“O&M”) Program that establishes written preventive
4 operations and maintenance schedules and procedures for all Force Mains. The Force Main
5 O&M Program shall be integrated into the GWA Asset Management Program, and
6 Computerized Maintenance Management System (CMMS) and shall include:

7 a. Preventative maintenance schedules for the inspection, periodic service,
8 and calibration of force main instrumentation, such as flow meters, liquid level sensors, alarm
9 systems, elapsed time meters, remote monitoring equipment, and air release valves;

10 b. Inspection and maintenance of sulfide and corrosion protection systems;
11 and
12

13 c. An annual systematic method of reviewing Force Main operational data,
14 which at a minimum includes pump run times, discharge pump rates and pump speed, pump
15 suction and discharge pressures, flow rates, and performance indicators (including excessive
16 noise, vibrations, and leakage), all of which can reveal reduced Force Main performance issues.
17

18 24. Pump Stations: Scope of Work. GWA shall complete all improvement work,
19 which may include Repair, Rehabilitation, Replacement, and relocation, for each of its Pump
20 Stations necessary to ensure reliability, functionality, and adequate capacity and satisfy each of
21 the acceptance criteria set forth in Paragraph 31.
22

23 25. Pump Station priority projects. Within the number of years from the Effective
24 Date specified after each pump station below, as compliance milestones, GWA shall complete all
25 necessary improvements to the three Pump Stations in the most critical need of work: the Ypao
26 (three (3) years), Hagåtña Main (two (2) years), and Mamajanao (three (3) years) Pump Stations
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(the “Pump Station Priority Projects”). All work, including any start-up activities and any related O&M training for field personnel, shall be completed by these deadlines.

26. Sewage Pump Stations: Tiers. Except for the Pump Station Priority Projects identified in Paragraph 25, GWA’s entire inventory of Pump Stations has been organized into four tiers: Tiers 1, 2, 3 and 4 set forth in Table B below.

Table B: Pump Station Tiers¹

<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 3</u>	<u>Tier 4</u>
1. Alupang Cove (C) 2. Astumbo #1 (N) 3. Astumbo #2 (N) 4. Bayside (N) 5. Dairy Road (C) 6. Ejector Station No. 2 (S) 7. Fujita (N) 8. Harmon (N) 9. Inarajan Main (S) 10. Inarajan Lift Station (S) 11. Machanao (N) 12. Mongmong Toto (C) 13. Pago Double Shaft (C) 14. Piti (C) 15. Pump Station No. 13 (S) 16. Pump Station No. 16 (S) 17. Pump Station No. 17 (S) 18. Pump Station No. 19 (S) 19. Pump Station No. 20 (S) 20. Route 16 (N) 21. Southern Link (N) (22) Talafofo (S) (23) Yigo (N)	1. Asan (C) 2. Barrigada (C) 3. Commercial Port (C) 4. Ejector Station No. 3 (S) 5. Ejector Station No. 6 (S) 6. Latte Heights Double Trouble (N) 7. Latte Heights Submarine (N) 8. Latte Plantation (N) 9. Latte Sun Rise (N) 10. Maite (C) 11. Mangilao (C) 12. Namu Yona (C) 13. New Chaot (C) 14. Pagachao (S) 15. Paseo De Oro (N) 16. Pump Station No. 11 (S) 17. Reyes (S) 18. Tai Mangilao (C) 19. Toto Garden (C)	1. Agat Chaligan Taleyfac (Chaligan) (S) 2. Cabras Island (C) 3. Casamiro (C) 4. Chalan Pago Pump Station 3 (C) 5. Chalan Pago Pump Station 5 6. Dero Road (C) 7. Ejector Station No. 4 (S) 8. Ejector Station No. 5 (S) 9. Ejector Station No. 7 (S) 10. Leyang (C) 11. Main Trunk Line (S) 12. Ordot (C) 13. Pacific Latte (N) 14. PGD (N) 15. Pump Station No. 12 (S) 16. Pump Station No. 14 (S) 17. Pump Station No. 15 (S) 18. Pump Station No. 18 (S) 19. Sinajana (C) 20. Zero Down PS (N)	All Pump Stations not included as Pump Station priority projects or Tiers 1, 2, and 3.

27. Sewage Pump Stations: Preliminary Work Plans. For each tier and beginning with Tier 1, as an interim milestone, GWA shall develop and submit to EPA for review and

¹ The district for each Pump Station is noted in parentheses: Northern (N), Central (C), and Southern (S).

1 approval a preliminary design schedule that prioritizes Pump Station improvements based on
2 current known conditions of each Pump Station within that tier ("Pump Station Preliminary
3 Work Plans"). GWA shall submit the Pump Station Preliminary Work Plans in accordance with
4 the following schedule:

- 5 a. Tier 1 Pump Station Preliminary Work Plan within one year of the
6 Effective Date;
7 b. Tier 2 Pump Station Preliminary Work Plan within five (5) years of the
8 Effective Date;
9 c. Tier 3 and Tier 4 Pump Station Preliminary Work Plan within ten (10)
10 years of the Effective Date.
11

12 28. GWA shall include in each Pump Station Preliminary Work Plan:

- 13 a. an estimated scope of work for each Pump Station based on the known
14 condition and a corresponding conceptual design in accordance with the acceptance criteria set
15 forth in Paragraph 31;
16 b. a schedule for a Pump Station condition assessment performed in
17 accordance with Paragraph 29; and
18 c. a proposed schedule of key implementation dates for each Pump Station
19 within the tier, to include, at a minimum, execute design contract, complete condition
20 assessment, issue a notice to proceed with design, execute construction contract, issue a notice to
21 proceed with construction, complete construction, all in accordance with Paragraph 30.
22 d. GWA may propose, based on worsening conditions at any Pump Station
23 from those that existed as of the Effective Date of this Consent Decree or for which land
24 acquisition is required, a change in Tier designation or substitution of Pump Station between
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1 Tiers, for EPA review and approval with the Preliminary Work Plan provided that (i) if GWA
2 proposes a tier change, GWA may only propose changing a Pump Station from a higher priority
3 tier to a lower priority tier by one tier (*e.g.*, GWA may not propose changing a Pump Station
4 from Tier 1 to Tier 3); and (ii) if GWA's Pump Station change proposal is based on GWA's
5 acquisition of land, GWA must include in its request to EPA a commitment to resolve the land
6 acquisition issue within a specific time period.
7

8 29. Sewage Pump Stations: Condition Assessments. GWA shall assess the condition
9 of each Pump Station through observation, direct inspection, investigation, and monitoring.
10 GWA shall use the data and information from the condition assessment to identify structural and
11 operational issues, evaluate the overall performance of the system, update its Pump Station asset
12 condition profiles, and assess the rate of deterioration of Pump Station assets. As interim
13 milestones, GWA shall complete and submit Pump Station condition assessments to EPA for
14 review and comment, in accordance with the schedules established within each Pump Station
15 Preliminary Work Plan tier. GWA shall ensure that each condition assessment is conducted,
16 stamped, and certified by a Professional Engineer, and include the following:
17

- 18
- 19 a. Review of existing condition assessment information and prior studies;
 - 20 b. Review of existing operations plans, operational data, and asset
21 management data;
 - 22 c. Interviews with operations, maintenance, and engineering staff;
 - 23 d. Review of available engineering drawings;
 - 24 e. Pump Station inspections that include structural, mechanical, electrical,
25 and civil assessments, and utilize up-to-date industry standard technologies, tools, and practices;
26
27 and
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1 f. For each pump: designed horsepower, power demands, designed flows,
2 installation date, and Preferred Operating Region;

3 g. For each Pump Station: average flows, overall power demand, and overall
4 wet well capacity.

5
6 For any associated Pump Station, the Force Main Condition Assessment completed under
7 Paragraph 18 can be utilized as part of the Pump Station condition assessment to the extent that
8 the information therein remains accurate and valid.

9
10 30. Completion of Tier 1 and 2 Projects. Based on the Pump Station condition
11 assessments, GWA shall complete all improvement work set forth in the Pump Station
12 Preliminary Work Plan for Tier 1 and 50% of the improvement work set forth in the Pump
13 Station Preliminary Work Plan for Tier 2, each as a compliance milestone, including any start-up
14 activities and any related O&M training for field personnel, in accordance with the following
15 schedule:

- 16
17 a. Tier 1 Projects within seven (7) years of the Effective Date; and
18 b. 50% completion of Tier 2 Projects within ten (10) years of the Effective
19 Date.

20 31. Sewage Pump Station Acceptance Criteria. For GWA to designate Pump Station
21 projects complete under Paragraph 30, the Pump Station project must satisfy each criterion listed
22 in this Paragraph and be designed and constructed to conform with good engineering practice
23 and the Ten States Standards, including practices to improve climate change resiliency of the
24 Pump Stations. As applicable, resilience considerations should be consistent with EPA's
25 Creating Resilient Water Utilities initiative, such as the Resilient Strategies Guide for Water
26 Utilities. When GWA determines that a Pump Station project has satisfied all of the acceptance
27 criteria and standards in this Paragraph, GWA shall certify in a semi-annual report submitted
28

1 pursuant to Paragraph 48 that the Pump Station project is complete according to Paragraph 30:

2 a. Emergency Operations. GWA shall install, and operate as necessary, at all
3 Pump Stations a continuous standby power supply in the form of a fuel-operated standby
4 generator system. GWA shall design this standby generator system as part of all Pump Stations
5 to supply the same amount of electrical power to the Pump Station (including all pumps,
6 controls, alarms, and support systems) as supplied by the utility company. Such emergency
7 operation systems shall comply with the Ten States Standards, including Chapter 47.
8

9 b. Screening baskets, comminutors, or grit removal devices. GWA shall
10 install and operate screening baskets, comminutors, or grit removal devices to remove and/or
11 comminute grit and large solids contained in the wastewater before it is pumped.
12

13 c. Proper site security and safety measures. GWA shall take all reasonable
14 measures to maintain safe Pump Station sites, ensure that site perimeter fencing is intact, and
15 prevent site access for trespassers, especially access to confined spaces.

16 d. Emergency action sheets. GWA shall update and post emergency action
17 sheets at each Pump Station that provide a set of standard operating procedures outlining the
18 steps an operator would take under a given scenario. GWA shall establish emergency action
19 sheets for the following Pump Station scenarios: power failure; backup power failure; emergency
20 response to an SSO; high-level alarm; and pre- and post-storm response. Each emergency action
21 sheet shall contain standard operating procedures that include: response time, response
22 personnel, chain of notification, response equipment, response procedures with order of
23 operations, safety precautions, and close-out procedures.
24
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26 e. Backflow prevention devices. GWA shall install backflow prevention
27 devices to protect potable water sources from cross-contamination from wastewater backflow.
28

1 f. Alarms and SCADA systems. GWA shall install and maintain alarms,
2 controls, and supervisory control and data acquisition (SCADA) systems and integrate all alarms
3 and controls to the SCADA system to provide remote status monitoring of its pumping
4 operations from an off-site location, and to the extent practicable, remote control of its pumping
5 operations from an off-site location. GWA shall ensure that the SCADA system continuously
6 monitors, reports, and transmits the following information:
7

- 8 i. Daily operating hours for each sewage pump;
- 9 ii. Number of pump starts for each sewage pump;
- 10 iii. Wet well level with high- and low-level alarm set points;
- 11 iv. Flow (instantaneous and average);
- 12 v. Discharge pressure with high- and low-level alarm set points; and
- 13 vi. Minimum digital inputs, including high-water level alarm in wet
14 well, drywell flooding, intrusion alarm, Alternating Current Pump Station power failure, Direct
15 Current low battery, and remote signal failure alarm.
16

17 g. Adequate pumping capacity and redundancy. GWA shall ensure that there
18 is pump redundancy at each Pump Station. The minimum number of pumps per station shall be
19 two. GWA shall ensure pumping capacity and redundancy complies with the Ten States
20 Standards, Chapter 42.31. *nws*

21 h. Adequate wet-well capacity. GWA shall ensure that newly-constructed,
22 Replacement, or Rehabilitated Pump Station wet-well volume is sufficient for anticipated wet-
23 weather peak hourly flow conditions and coordinated with pump sizing for the station. GWA
24 shall ensure each newly-constructed, Replacement, or Rehabilitated Pump Station wet-well
25 complies with the Ten States Standards, Chapter 42.6.
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1 i. Corrosion protection. GWA shall Replace all Pump Station equipment,
2 including wet-well and valve equipment, rendered inoperable from corrosion, and provide Pump
3 Station equipment with adequate corrosion protection. GWA shall ensure corrosion protection
4 complies with the Ten States Standards, Chapter 42.25.

5 j. Adequate electrical panels, lighting, and Power Supply. GWA shall
6 ensure that each Pump Station has adequate electrical panels, lighting, and Power Supply.
7

8 k. Force Mains. GWA shall ensure Force Mains leaving the Pump Station
9 are in proper working condition and comply with the Ten States Standards, Chapter 49. For any
10 associated Pump Station, work completed pursuant to the Force Main Action Plan can be utilized
11 as part of the Pump Station Rehabilitation process to the extent that the information therein
12 remains accurate and valid.
13

14 l. Pumps. GWA shall ensure each pump is installed and operates within the
15 Preferred Operating Region under normal operating conditions and normal daily flow conditions.
16 GWA shall consider whether each Rehabilitated pump needs a variable frequency drive based on
17 a cost-benefit analysis. GWA shall ensure each type of pump within its system has a complete
18 repair kit and the necessary spare parts to resume pump service. GWA shall ensure each pump
19 complies with the Ten States Standards, Chapter 42.3.
20

21 m. Valves. GWA shall ensure all Pump Station valves are installed and in
22 good working condition. Each wastewater pump shall have isolation valves to permit the
23 removal or maintenance of the pumps and check valves without affecting the operation of
24 remaining pumps. Each Pump Station shall have sufficient valves to permit the proper operation
25 and maintenance of the Pump Station during normal, peak, and bypass conditions. Each valve
26 shall be rated for use with raw, unscreened wastewater, and shall be designed for its function and
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1 installation location, as well as the normal and maximum operating pressures expected at the
2 Pump Station. GWA shall ensure valves comply with the Ten States Standards, Chapter 42.5.

3 n. Computerized Maintenance Management System (“CMMS”). GWA shall
4 enter all equipment assets, spare parts, preventative maintenance procedures, and a recurring
5 maintenance schedule for all Pump Station assets into GWA’s CMMS in accordance with
6 GWA’s asset management program. The manufacturer’s documented operation and
7 maintenance procedure shall be incorporated into the specific preventative maintenance for each
8 asset.
9

10 o. Operational testing and performance period. GWA shall ensure
11 that each Pump Station completes the operational testing and performance period successfully.
12

13 p. Operational Testing. For operational testing, GWA shall operate
14 and monitor the Pump Station for five (5) consecutive Days. During operational testing, GWA
15 shall demonstrate Pump Station operation on automatic control without equipment or control
16 failure and with sewage tie-in. The Pump Station mechanical equipment, electrical/control
17 systems, and emergency power equipment shall operate without failure during the operational
18 testing.
19

20 q. Performance Period. For a Pump Station to be considered
21 operational and successfully complete the performance period, all Pump Station equipment and
22 operational systems, including all control, alarm, and SCADA systems, shall operate without
23 failure for six (6) months and shall not result in any SSOs caused by a Pump Station failure
24 within that time period.
25

26 B. HAGÁTŇA WWTP

27 32. HagátŇa WWTP Secondary Treatment Feasibility Study. Within seven (7) years
28 of the Effective Date, as a compliance milestone, GWA shall submit to EPA for review and

1 approval a feasibility study for secondary treatment upgrades to the Hagåtña WWTP that will
 2 include analyses of design options, alternative locations, climate change and sea level rise, and
 3 planning level construction cost estimates and construction timelines. The feasibility study must
 4 conform with good engineering practice and the Ten States Standards, including practices to
 5 improve climate change resiliency of the secondary treatment upgrades to the Hagåtña WWTP.
 6 As applicable, resilience considerations should be consistent with EPA’s Creating Resilient
 7 Water Utilities initiative, such as the Resilient Strategies Guide for Water Utilities.

9 33. Hagåtña WWTP Interim Effluent Limits and Monitoring Requirements. Until
 10 GWA achieves and demonstrates compliance with secondary treatment standards of the Clean
 11 Water Act, as defined by 40 C.F.R. Part 133, and any effluent limitations for TSS and BOD set
 12 forth in GWA’s applicable NPDES Permit for the Hagåtña WWTP, GWA shall achieve
 13 compliance with interim effluent limits and monitoring requirements for wastewater discharges
 14 from the Hagåtña WWTP set forth below in Table C. This Consent Decree shall not affect the
 15 force or effect of any other effluent limitations, or monitoring and reporting requirements, or any
 16 other terms and conditions of the applicable NPDES Permit(s).
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 18

19 **Table C: Hagåtña WWTP Interim Effluent Limits**

Interim Discharge Limitations					Monitoring Requirements	
Discharge Parameter	Average Monthly	Average Weekly	Maximum Daily	Units	Frequency	Sample Type
Biochemical Oxygen Demand (5-day)	97	140	--	mg/L	Weekly	24-hour composite
	4,911	7,055	--	lbs/day		
	Average monthly percent removal shall not be less than 33%					
Total Suspended Solids	64	125	--	mg/L	Weekly	24-hour composite
	2,827	5,500	--	lbs/day		
	Average monthly percent removal shall not be less than 50%					

1 C. OPERATION & MAINTENANCE REQUIREMENTS

2 34. Cleaning. Beginning on the Effective Date, as an interim milestone, GWA shall
3 clean 60 “unique miles” of Gravity Mains in each year, which is approximately 20 percent of
4 GWA’s Gravity Mains. In calculating the number of “unique miles” each year, GWA shall
5 count each individual pipe segment cleaned in that year, but shall not count an individual pipe
6 segment multiple times even if that pipe segment was subject to repeated cleaning in that year.
7 GWA shall clean its entire Gravity Main system every 5 years. This obligation shall terminate
8 upon Termination of the Consent Decree.
9

10 35. Hot Spot Cleaning. As an interim milestone, GWA shall implement a Hot Spot
11 Cleaning Program, as conditionally approved by EPA on July 11, 2019, with the focus on
12 repeated, routine cleaning of sewer locations that have a history of blockages, FOG and grit
13 build-up, and SSOs.
14

15 36. SSO Response Plan. GWA shall implement an SSO Response Plan as approved
16 by EPA on September 9, 2020. The SSO Response Plan shall include, but not be limited to,
17 standard operating procedures for timely response to SSOs, spill containment, site security, site
18 cleanup, a standard method for the estimation of spill volumes, public notification, and reporting
19 requirements. For any repeat SSO or SSO greater than 1,000 gallons from a Gravity Main, the
20 SSO Response Plan shall require GWA to conduct a CCTV inspection downstream of the SSO
21 location for purposes of determining the cause of the SSO.
22

23 37. SSO and Bypass Reporting Requirements. Within thirty (30) Days after the end
24 of each calendar-year quarter (i.e., by January 30, April 30, July 30, and October 30) after the
25 Effective Date, until termination of the Consent Decree, GWA shall submit to EPA and Guam
26 EPA a summary of all SSOs and Bypasses that occurred during the quarter.
27

28 a. For each SSO, the reports shall provide: (a) a map showing the locations

1 of all SSOs occurring in the previous quarter in relation to the locations of drinking water wells
2 and Pump Stations; (b) the start and end date and time of each SSO; (c) the location of each SSO
3 including address, village, and manhole numbers; (d) the structure(s) from which each SSO
4 emerged (e.g., manhole, broken pipe, wet well, indoor plumbing, Lateral cleanout, etc.); (e) the
5 pipe size, length, and material; (f) the estimated volume of each SSO including gross volume,
6 amount recovered, and amount not recovered; (g) the cause of each SSO; (h) whether each SSO
7 entered a particular water of the United States, and if so, the name of the water body and whether
8 it entered via storm drains or other man-made conveyances; (i) the results and analysis of any
9 post-SSO CCTV results; and (j) the actions GWA took to control the SSO and prevent future
10 SSOs at the same location.
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12
13 b. For each Bypass, the reports shall provide: (a) the name of the treatment
14 facility and the part(s) of the facility bypassed; (b) the start and end date and time of the Bypass;
15 (c) a detailed explanation of the cause(s), and all available photographs, videos, and maps that
16 would aid in explaining its cause(s); (d) if a Bypass was in response to a storm event, local rain
17 gauge data for that event; (e) the following flows: Bypass; facility influent; and facility effluent;
18 and a description of how they were determined, including any calculations; (f) the results of any
19 samples taken of the Bypass or receiving water, or an explanation of why sampling was not
20 conducted; (g) the dates that GWA provided verbal and written notifications of the Bypass to
21 EPA and Guam EPA; and (h) the actions GWA took to control the Bypass and prevent future
22 Bypasses.
23

24
25 38. Asset Management. Within six (6) months of the Effective Date, as an interim
26 milestone, GWA shall develop and implement an Asset Management Program, including a
27 complete and regularly updated asset registry; routine condition assessments; preventive
28

1 maintenance schedules for all assets; and a system for maintenance tracking. GWA's Asset
2 Management Program shall meet the standards of the "International Standard ISO 55001 - Asset
3 management – Management systems – Requirements" (2014 edition or any subsequent revision).
4 GWA shall integrate the data from the Asset Management Program into GWA's long- and short-
5 term planning processes, including GWA's official capital improvement plan.

6
7 **D. PRETREATMENT PROGRAM**

8 39. Industrial Pretreatment Program. As a compliance milestone, GWA shall
9 implement and enforce an Industrial Pretreatment Program that complies with 40 C.F.R. Part
10 403, and is approved by the Guam Legislature and by EPA.

11 a. Within nine (9) months of the Effective Date, as an interim milestone,
12 GWA shall submit to EPA, for review and comment, a proposed Industrial Pretreatment
13 Program. As part of the Industrial Pretreatment Program, GWA shall:

14 i. Submit a revised sewer use ordinance that provides GWA with the
15 authority to enforce the requirements of Sections 307(b) and (c) and 402(b)(8) of the Act, 33
16 U.S.C. §§ 1317(b) and (c), 1342(b)(8), and any regulations implementing those Sections;

17 ii. Identify and locate all possible Industrial Users, that might be
18 subject to the Pretreatment Program consistent with 40 C.F.R. § 403.8(f)(6);

19 iii. Conduct a technically-based local limit evaluation as required by
20 40 C.F.R. § 403.8(f)(4) and, if required, develop technically-based local limits as required in 40
21 C.F.R. § 403.5. This local limit evaluation shall include the analyses necessary to determine the
22 maximum headworks loadings for the Northern District and Hagåtña WWTPs and the maximum
23 pollutant levels protection of the Wastewater Collection System, as well as the method of
24 allocating allowable loadings to the Industrial Users (as defined in 40 C.F.R. § 403.3(j)), a
25 schedule of public hearings and outreach, and the ordinance adoption procedure;

1 iv. Implement control mechanisms (such as permits) to ensure that
2 Industrial Users comply with applicable Pretreatment Standards and requirements consistent with
3 40 C.F.R. § 403.8(f);

4 v. Develop and implement an enforcement response plan that
5 contains detailed procedures indicating how GWA will investigate and respond to instances of
6 Industrial User noncompliance in accordance with 40 C.F.R. § 403.8(f)(5);

7 vi. Develop a sampling program to sample and analyze the effluent of
8 its Industrial Users in accordance with 40 C.F.R. § 403.8(f)(2)(v);

9 vii. Conduct inspections and surveillance activities of Significant
10 Industrial Users, as defined in 40 C.F.R. § 403.3(v), at least once annually in order to identify,
11 independent of information supplied by the Industrial User, noncompliance with applicable
12 Pretreatment Standards in accordance with 40 C.F.R. § 403.8(f)(2)(v); and

13 viii. Demonstrate that GWA has sufficient resources and qualified
14 personnel to carry out the Industrial Pretreatment Program in accordance with 40 C.F.R. §
15 403.8(f)(3).

16 b. Within six (6) months of receipt of EPA's comments on the proposed
17 Industrial Pretreatment Program, GWA shall develop and submit to the Guam Legislature for
18 approval pursuant to Guam's Administrative Adjudication Act an Industrial Pretreatment
19 Program that complies with 40 C.F.R. Part 403 and addresses EPA's comments.

20 c. Within thirty (30) Days of the Guam Legislature's approval of the Part
21 403-compliant Industrial Pretreatment Program, GWA shall submit that program to EPA for
22 final review and approval.

23 40. Fats, Oils, and Grease Control Program. Within six (6) months of EPA's
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1 approval of the FOG control program manual, GWA shall develop and submit to the Guam
2 Legislature for approval pursuant to Guam's Administrative Adjudication Act a comprehensive
3 FOG control program to minimize the potential of SSOs caused by FOG that complies with 40
4 C.F.R. Part 403. GWA shall, as a compliance milestone, implement and enforce the Part 403-
5 compliant FOG control program approved by the Guam Legislature. Within 90 Days of the
6 Effective Date, as an interim milestone, GWA shall submit to EPA, for review and approval, a
7 FOG control program manual. The FOG control program shall meet the following requirements:
8

9 a. A Food Service Establishment shall not discharge its wastewater into the
10 Wastewater Collection System without a GWA permit issued in accordance with Guam
11 Administrative Rules and Regulations ("GAR") Title 28 and the FOG control program manual;
12

13 b. At a minimum, GWA shall conduct an annual inspection of each GRD at
14 each FSE to verify that a properly-sized GRD has been installed, is operating, and has been
15 maintained in compliance with GAR Title 28 and the FOG control program manual. GWA's
16 annual inspections shall include physical inspection, including coring, of the GRD and review of
17 both GRD maintenance and grease hauling logs;
18

19 c. For any FSE or other GRD permittee that has failed to properly install,
20 operate, and maintain a GRD, the FOG control program shall include an enforcement response
21 plan; and
22

23 d. For any FSE not served by a GRD, GWA shall require the FSE to obtain a
24 permit and install, operate, and maintain a properly-sized GRD that meets the requirements of
25 GAR Title 28 and the FOG control program manual.

26 E. APPROVAL OF DELIVERABLES/PERMITS

27 41. Approval of Deliverables. After review of any plan, report, or other item that is
28 required to be submitted for EPA's review and approval pursuant to this Consent Decree, EPA

1 shall in writing: (a) approve the submission; (b) approve the submission upon specified
2 conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove
3 the submission. EPA will use its best efforts to expeditiously review and take action on
4 deliverables that GWA submits.

5 42. If the submission is approved pursuant to Paragraph 41, GWA shall take all
6 actions required by the plan, report, or other document, in accordance with the schedules and
7 requirements of the plan, report, or other document, as approved. If the submission is
8 conditionally approved or approved in part pursuant to Paragraph 41(b) or (c), GWA shall, upon
9 written direction from EPA, take all actions required by the approved plan, report, or other item
10 that EPA determines are technically severable from any disapproved portions, subject to GWA's
11 right to dispute only the specified conditions or the disapproved portions, under Section IX
12 (Dispute Resolution).

13 43. If the submission is disapproved in whole or in part pursuant to Paragraph 41(c)
14 or (d), the GWA shall, within thirty (30) Days or such other time as the Parties agree to in
15 writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved
16 portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission
17 is approved in whole or in part, GWA shall proceed in accordance with the preceding Paragraph.

18 44. Any stipulated penalties applicable to the original submission, as provided in
19 Section VII (Stipulated Penalties), shall accrue during the 30-Day period or other specified
20 period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or
21 in part; provided that, if the original submission was so deficient as to constitute a material
22 breach of GWA's obligations under this Decree, the stipulated penalties applicable to the original
23 submission shall be due and payable notwithstanding any subsequent resubmission.
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1 45. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in
2 whole or in part, EPA may again require the submitting Defendant to correct any deficiencies, in
3 accordance with the preceding Paragraphs, or may itself correct any deficiencies, subject to
4 Defendant's right to invoke Dispute Resolution and the right of EPA to seek stipulated penalties
5 as provided in the preceding Paragraphs.

6 46. In the event of unforeseen contingencies, GWA may make a written request to
7 EPA to change any schedule or deadline in any approved or conditionally approved submission.
8 Any such request must be submitted at least sixty (60) Days prior to the applicable deadline and
9 must include a proposed schedule or deadline, the basis for the request, and how GWA intends to
10 meet the proposed schedule or deadline, including supporting documentation. EPA will approve,
11 approve with conditions, or disapprove the request. If EPA approves or conditionally approves
12 the request, the new schedule or deadline will be applicable as of the date of EPA's approval or
13 conditional approval. Any dispute regarding EPA's decision on a request made under this
14 Paragraph shall be subject to Dispute Resolution pursuant to Section IX (Dispute Resolution).
15 Changes to milestones, schedules, or deadlines set forth in this Consent Decree may only be
16 made through a modification pursuant to Section XVI (Modification).

17 47. Permits. Where any obligation under this Section requires GWA to obtain a
18 federal, State, or local permit or approval, GWA shall submit timely and complete applications
19 and take all other actions necessary to obtain all such permits or approvals. GWA may seek
20 relief under the provisions of Section VIII (Force Majeure) for any delay in the performance of
21 any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or
22 approval required to fulfill such obligation, if GWA has submitted timely and complete
23 applications and has taken all other actions necessary to obtain all such permits or approvals.
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VI. REPORTING REQUIREMENTS

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2 48. Semi-annual Report. By January 31st and July 31st of each year after the Effective
3 Date of this Consent Decree, until termination of this Decree pursuant to Section XVII, GWA
4 shall submit to EPA by email a complete and accurate semi-annual report for the preceding six
5 months that shall address: the status of any construction activities; the status of all injunctive
6 relief compliance requirements set forth in Section V, including Paragraph references and
7 completion dates; completion of milestones; problems encountered or anticipated, together with
8 implemented or proposed solutions; a list of all required permits and the status of those permit
9 applications; operation and maintenance updates; and reports to Guam EPA. More specifically,
10 each of the semi-annual reports shall include:

11
12 a. A discussion of the completion of milestones in the Pump Station work
13 plans in the form of a list that identifies by Pump Station name and project, satisfaction of the
14 acceptance criteria in Paragraph 31, and the completion date for all Pump Station improvements
15 scheduled in the applicable Pump Station Preliminary Work Plans.

16
17 b. A statement of the number of miles of Gravity Mains that GWA has
18 Rehabilitated and Replaced in the previous six months, in accordance with Paragraph 12.b. For
19 each Gravity Main Rehabilitated or Replaced, GWA shall provide the following information:
20 (1) the pipe identification number; (2) whether the pipe was Rehabilitated or Replaced; (3) the
21 length of the Gravity Main claimed as credit towards the mileage requirements and the length of
22 Rehabilitation or Replacement performed; (4) the pipe material; (5) the diameter of the pipe;
23 (6) the original installation date of the Gravity Main at issue; (7) the most recent condition
24 assessment of the Gravity Main prior to its Rehabilitation or Replacement; (8) a map depicting
25 the location of each Gravity Main Rehabilitated or Replaced; (9) the average annual rate of
26 Gravity Main Rehabilitation based on a two (2) year rolling average, the number of feet of
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1 Gravity Mains Rehabilitated, and the cumulative total feet of Gravity Main Rehabilitated since
 2 the Effective Date; (10) the number of manholes associated with Rehabilitated Gravity Mains
 3 and the number of manholes Rehabilitated; (11) the number of Laterals reconnected in
 4 association with Gravity Main Rehabilitation and Replacement; (12) if GWA did not achieve its
 5 Rehabilitation requirement in Paragraph 12.b, an explanation of why it did not achieve the
 6 Rehabilitation requirement and a description of what changes to the work will be made in order
 7 to correct the deficiency and achieve the Rehabilitation requirement in GWA's subsequent fiscal
 8 years; (13) the Rehabilitation budget and dollars spent on Gravity Main Rehabilitation; (14) the
 9 Gravity Main Rehabilitation projects targeted to be completed in GWA's next fiscal year; and
 10 (15) an explanation of any revisions that were made to GWA's financial planning associated
 11 with future Gravity Main Rehabilitation and Replacement projects.
 12

13
 14 c. A list of all deliverables submitted to EPA and a description of the work
 15 performed pursuant to all deliverables submitted to the United States and approved or
 16 commented on by EPA, as well as a list of deliverables submitted to the United States but not yet
 17 approved or commented on by EPA.
 18

19 d. The feet of Gravity Mains cleaned and percent of feet of Gravity Mains in
 20 the Wastewater Collection System cleaned as part of the routine and hot spot cleaning programs
 21 set forth in Paragraphs 34 and 35, reporting both unique footage and total footage (i.e., including
 22 repeat cleanings) and the feet of Gravity Mains in the hot spot cleaning program and the range of
 23 cleaning frequencies.
 24

25 e. A description of the activities to Repair, Rehabilitate, or Replace Acute
 26 Defects pursuant to Paragraph 12.a, including the number of Acute Defects found; the number of
 27 Acute Defects Repaired, Rehabilitated, and Replaced; and for Acute Defects that were not
 28